FUJIFILM

FUJI COMPUTED RADIOGRAPHY

CR Console

OPERATION MANUAL

6th Edition

March 2008

This Operation Manual provides detailed information about how to use the Fuji Computed Radiography CR Console as well as important points to note when using the CR Console.
Before using this product, be sure to read this manual thoroughly. And keep it handy for future references. In addition, please be sure to read the CR Console Operation Guide for your understanding of product overview and its basic operation procedure.

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FOREWORD

Thank you for purchasing the CR Console.

This Operation Manual applies to the following software.

- CR Console Application Software V6.0

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This system is classified as a medical device under EC Directive 93/42/EEC.
This equipment has been designed on the assumption that the patient would not come into direct contact with it or for operation by appropriately trained operator.

Process waste correctly, as stipulated by local law or any regulations that apply.
When discarding the CR Console that incorporates the lithium battery, be sure to contact a licensed waste disposal contractor because it cannot be disposed of as a general waste.

Caution : Rx Only

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Chapter 1

PRECAUTIONS

1.1 For Safe Operation

This chapter lists the precautions required to use the CR Console safely. Before starting use, read this chapter very carefully and understand its operations thoroughly first.

1.1.1 Warnings and Cautions Included in this Operation Manual

Safety precautions described in this manual include "WARNING (⚠WARNING)" and "CAUTION (⚠CAUTION)", which are explained as follows.

⚠WARNING

Indicates hazardous situations which may lead to serious injuries or even death if the precaution is not or could not be followed.

⚠CAUTION

Indicates hazardous situations which may lead to mild or medium injuries if the precaution is not or could not be followed. Precautions against accidents causing only physical damages.

NOTE

Gives procedures requiring special attention, instructions which must be followed, supplementary explanations, etc.

⚠WARNING

This system supplies high voltage to the inside of unit, etc. The following instructions must be carefully followed to prevent an electrical shock.

- No one other than service engineers should open the unit cover. Do not touch the high voltage portion of the above-mentioned parts with your hand, or you may get an electric shock.

⚠WARNING

The supply voltage of the units comprising this system is AC100V to 120V or AC200V to 240V. The instructions below must be followed to prevent an electrical shock.

- Install the unit where no water may subject the units.
- Check that the ground of each unit has been perfectly connected.
- Check that all the cables have been properly and perfectly connected.

⚠CAUTION

In extended uses of the unit, set aside 10 to 15 minutes after every hour to rest your eyes and hands.

- For image reading purposes, use an image display monitor suited for X-ray imaging diagnosis. The image display monitor making part of this system is not suited for X-ray imaging diagnosis.

NOTE

The contents (objects) of the operation screens described in this manual may be changed/added/deleted without any prior notice because of the software version upgrade.

1.1.2 Cautions Observed When Using This Equipment Within the Patient Environment

When connecting to other equipment such as an Image Reader, ensure that the equipment to be connected is installed properly so that it can be used safely.
For details of installation of equipment to be connected, see the documents provided with it, and contact our service engineer as necessary.
While this equipment is in operation, pay due attention not to have the patient come into direct contact with it.

1.2 Electromagnetic Compatibility (EMC)

This equipment has been tested and found to comply with the limits for medical devices to the IEC60601-1-2:2001 +Amd1 2004, Medical Device Directive 93/42/EEC.
These limits are designed to provide reasonable protection against harmful interference in a typical medical installation.
This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to other devices in the vicinity. However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to other devices, which can be determined by tuning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures;

- Reorient or relocate the receiving device.
- Increase the separation between the equipment.
- Connect the equipment into an outlet on a circuit different from that to which the other device(s) are connected.
  Consult the manufacturer or field service technician for help.

Guidance and manufacturer's declaration - electromagnetic emissions		
The CR-IR 348CL is intended for use in the electromagnetic environment specified below. The customer or the user of the CR-IR 348CL should assure that it is used in such an environment.		
Emissions test	**Compliance**	**Electromagnetic environment - guidance**
RF emissions CISPR 11 1997 +Amd1 1999 +Amd2 2002	Group 1	The CR-IR 348CL uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11 1997 +Amd1 1999 +Amd2 2002	Class A	The CR-IR 348CL is suitable for use in all establishments other than domestic and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC61000-3-2:2000	Class A and Class D	
Voltage fluctuations and flicker IEC61000-3-3:1994 +Amd1 2001	Clause5	

Guidance and manufacturer's declaration - electromagnetic immunity			
The CR-IR 348CL is intended for use in the electromagnetic environment specified below. The customer or the user of the CR-IR 348CL should assure that it is used in such an environment.			
Immunity test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment – guidance**
Electrostatic discharge (ESD) IEC61000-4-2 Ed1.0 1995 +Amd1 1998 +Amd2 2000	±2, ±4, ±6kV contact ±2, ±4, ±8kV air	±2kV contact ±4kV contact ±6kV contact ±2kV air ±4kV air ±8kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC61000-4-4 Ed2.0 2004	±2kV for power supply lines ±1kV for input/output lines	±2kV for power supply lines ±1kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC61000-4-5 2005	±1kV differential mode ±2kV common mode	±1kV differential mode ±2kV common mode	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC61000-4-11 2004	<5% U_T (>95% dip in U_T) for 0.5 cycle 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25 cycles <5% U_T (>95% dip in U_T) for 5 s	<5% U_T (>95% dip in U_T) for 0.5 cycle 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25 cycles <5% U_T (>95% dip in U_T) for 5 s	Mains power quality should be that of a typical commercial or hospital environment. If the user of the CR-IR 348CL requires continued operation during power mains interruptions, it is recommended that the CR-IR 348CL be powered from an uninterruptible power supply or a battery.
Power frequency (50/60Hz) magnetic field IEC61000-4-8 Ed1.0 1993 +Amd1 2000	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE: U_T is the a.c. mains voltage prior to application of the test level.			

Guidance and manufacturer's declaration - electromagnetic immunity		
The CR-IR 348CL is intended for use in the electromagnetic environment specified below. The customer or the user of the CR-IR 348CL should assure that it is used in such an environment.		
Immunity test	**IEC 60601 test level**	**Compliance level**
Conducted RF IEC61000-4-6 2003 +Amd1 2004 +Amd2 2006	3 Vrms, 1kHz, AM80% modulation 150 kHz to 80 MHz	3 Vrms
Radiated RF IEC61000-4-3 2006	3 V/m, 1kHz, AM80% modulation 80 MHz to 2.5 GHz	3 V/m

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Chapter 2

OPERATIONS BASICS

2.1 Starting Up and Shutting Down the CR Console

This section explains how to start up and shut down the CR Console. Be sure to start up peripheral devices which are required for the work as well as the Image Reader and display.

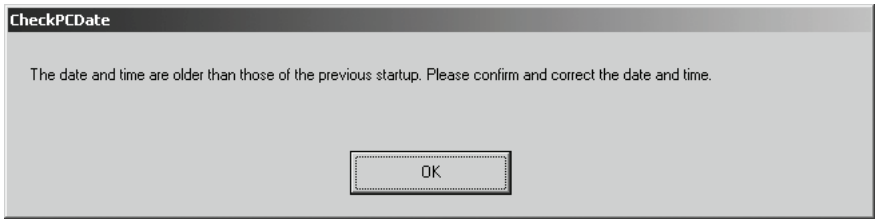
2.1.1 Starting Up the CR Console

Turn on the display, then turn on the personal computer.
The application software of the CR Console automatically starts. When the Patient Information Input Screen is displayed, startup is completed.

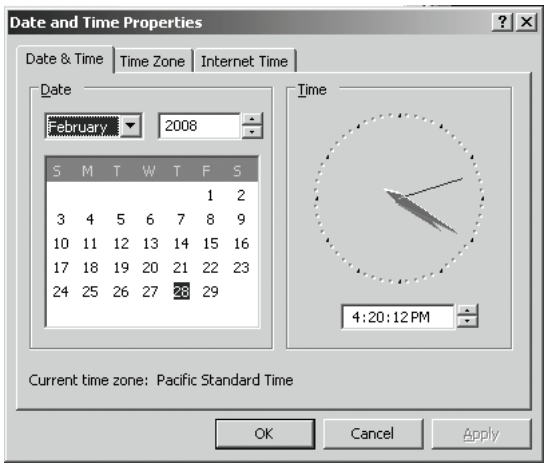
NOTES

- Do not start up the CR Console before turning on the CR exposure unit. Otherwise, a message indicating a communication error may appear on the CR Console.
- Be sure to turn on the display first, then turn on the personal computer.
  Note that the touch panel may not respond accordingly.
  We recommend that you use the equipment with the display turned on.
- User authentication may be required to log into the system, depending on the setting performed at installation.

- If the time displayed on the personal computer is before that of the last time when it was turned on, the following message appears. In this case, contact our authorized distributor.
  “The date and time are older than those of the previous startup. Please confirm and correct the date and time.”


CheckPCDate
The date and time are older than those of the previous startup. Please confirm and correct the date and time.
OK

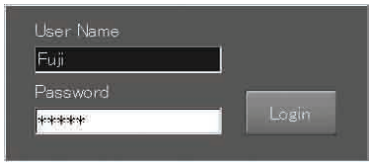
Selecting [OK] will display the “Date and Time Properties”.



Set the time and date to the current ones, and then select [OK]. The correct time and data will be displayed on the personal computer.

(1) Login

A login box like that shown below opens at CR Console startup and after the previous user has logged off. The user name appearing in the login box that opens now is the one with which you were logged in the system previously. Input "User Name" and "Password" and then select Login.



"Login box"

When the user logged in the system, the "Patient Information Input Screen" opens. The user name input in the "Login box" displays in the Technologist input box. (The technologist name may not be displayed depending on the setting performed at installation.)

■ **If the "login box" opens when the equipment is left inoperative for a certain period of time**

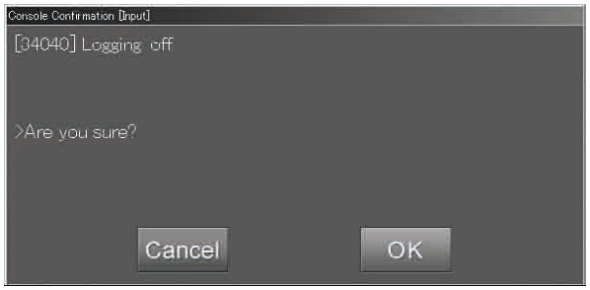
The user logged in the system will be logged off automatically unless any manipulation is performed over a certain period of time while no studies are being in process.
At this time, the "Login box" appears on the screen. To resume the operation, perform necessary manipulations in the login box.
If the equipment is left inoperative for a certain period of time while a study is being performed (in process of image reading on the study screen, for example), the screen will be locked automatically causing then the "Password input box" to be displayed. This disables on-screen operations until the screen is unlocked accordingly. (Background processing, such as image reading or image output, is performed.)
To unlock the screen, input the password ad then select OK. The system restores the previous screen.

"Password input box"

(2) Logoff

Be sure to log off the system whenever you are terminating/suspending operations, excepting for when shutting down the CR Console and disconnecting the power.
Select FCR to display the exposure menus, and then select the "Logoff" menu.

The “Confirmation box” is displayed.
Select OK.



“Confirmation box”

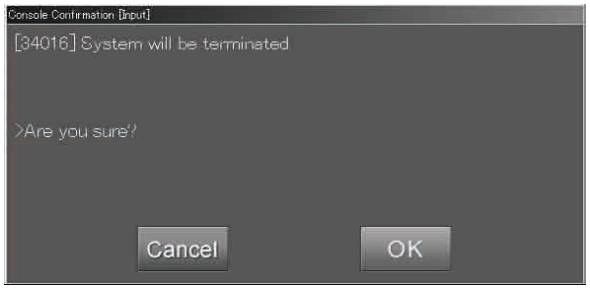
This completes logoff processing and the “Login box” opens.

Cancel : Cancels operation.

2.1.2 Shutting Down the CR Console

Select FCR to display the menu on the Patient Information Input Screen, and then select Shut Down.

The “Confirmation box” is displayed.
Select OK. The application software of the CR Console ends, and the power of the personal computer is automatically turned off.



Cancel : Cancels operation.

NOTE

- As the CR Console is not supposed to operate continuously all day long, turn off the personal computer once a day by performing this section’s operation.

2.2 Operation Screen

This section explains the operation screen for the basic operations ranging from reception to completion of a study.
(About the various lists, refer to [Chapter 5. OPERATIONS - LIST].)

2.2.1 Receiving Studies

Shown below is the transition outline of the basic screens for “Receiving Studies”.

(1) Inputting Patient Information ([3.1.1 Inputting Patient Information])

“Patient Information Input Screen”

To (2) Selecting Exposure Menu

(2) Selecting Exposure Menu ([3.1.3 Selecting Exposure Menu])

“Exposure Menu Selection Screen”

To 2.2.2 Confirming Study Details

2.2.2 Confirming Study Details

Shown below is the transition outline of the basic screens for “Confirming Study Details”.

(1) Modifying Patient Information ([3.2.1 Modifying Patient Information])

From 2.2.1 Receiving Studies

“Exposure Menu Selection Screen”

“Patient's Information Input Box”

To (2) Modifying Exposure Menu

(2) Modifying Exposure Menu ([3.2.3 Modifying Exposure Menu])

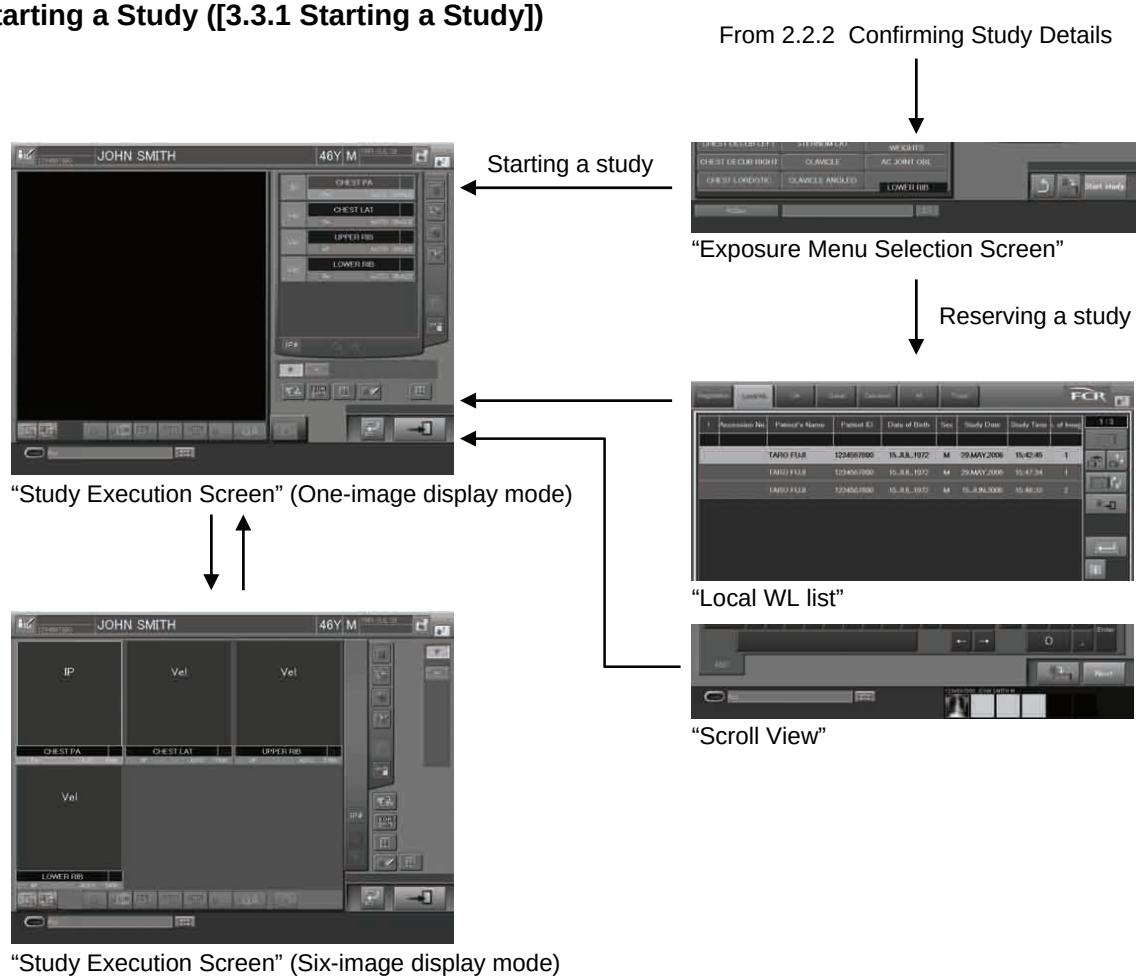
“Exposure Menu Selection Screen”

To 2.2.3 Executing Studies

2.2.3 Executing Studies

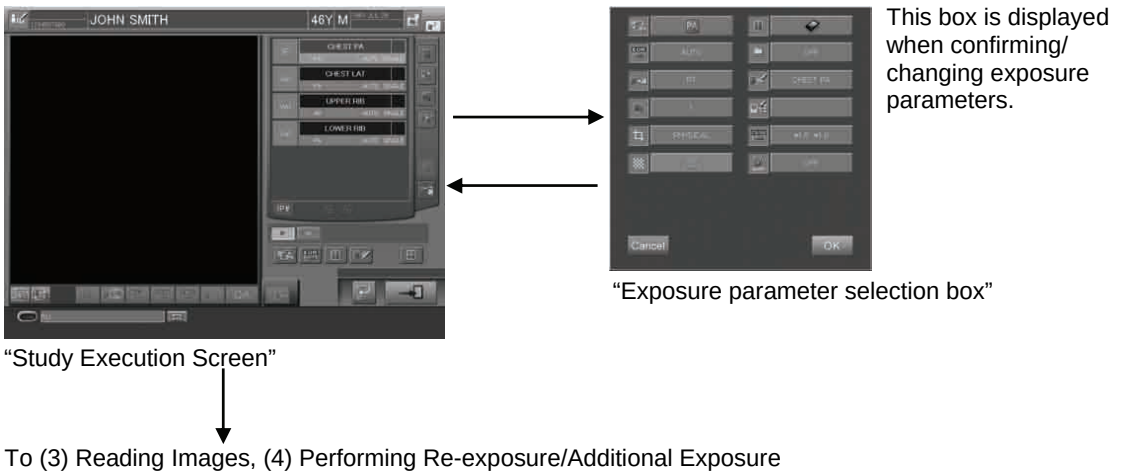
Shown below is the transition outline of the basic screens for “Executing Studies”.
Two display modes are available on the Study Execution Screen : One-image display mode and six-image display mode.

(1) Starting a Study ([3.3.1 Starting a Study])


From 2.2.2 Confirming Study Details
Starting a study
“Exposure Menu Selection Screen”
Reserving a study
“Study Execution Screen” (One-image display mode)
“Local WL list”
“Scroll View”
“Study Execution Screen” (Six-image display mode)

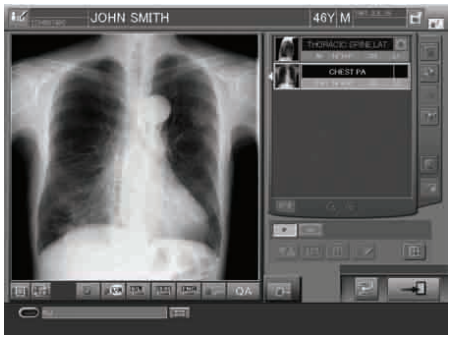
(2) Preparation before Exposure (Study) ([3.2 Confirming Study Details])

Presented below is the transition outline of the basic screen for [Preparation before Exposure (Study)].


This box is displayed when confirming/ changing exposure parameters.
“Exposure parameter selection box”
“Study Execution Screen”
To (3) Reading Images, (4) Performing Re-exposure/Additional Exposure

(3) Reading Images ([3.3 Executing Studies]), (4) Performing Re-exposure/Additional Exposure ([3.5 Performing Re-exposure and Additional Exposure])

From (2) Preparation before Exposure (Study)



"Study Execution Screen"

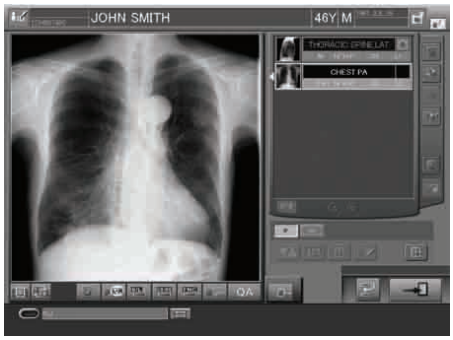
To 2.2.4 (1) Editing Images

2.2.4 From "Editing Images", "Distribution" to "Suspending Studies" and "Completing Studies"

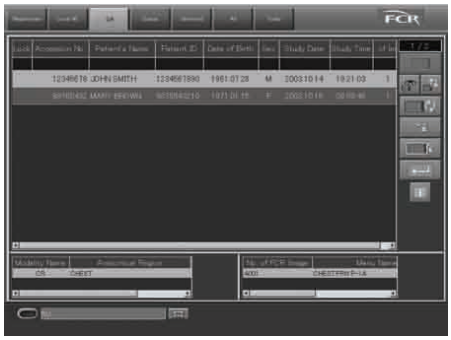
Shown below is the transition outline of the basic screens for Editing Images, Distribution to Suspending Studies and Completing Studies.

(1) Editing Images ([3.6 Editing Images])

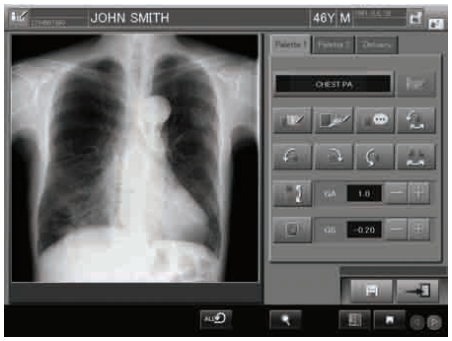
From 2.2.3 Executing Studies



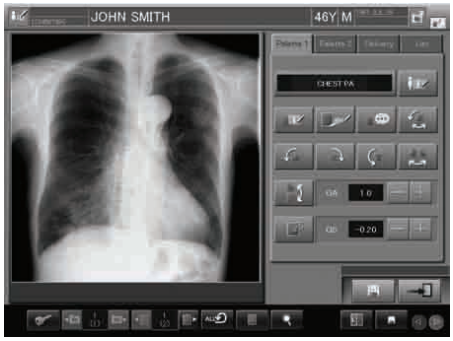
"Study Execution Screen"



"Lists (QA/Delivered/All/Today)"



"Image Editing Screen (an image level)"

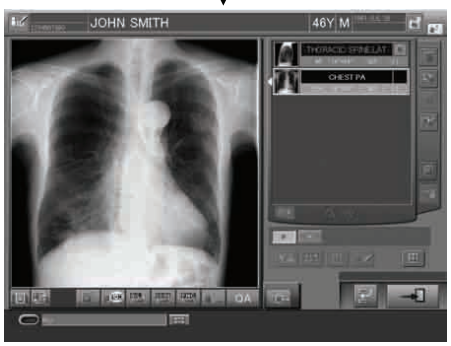


"Image Editing Screen (a study level)"

To (2) Image Delivery

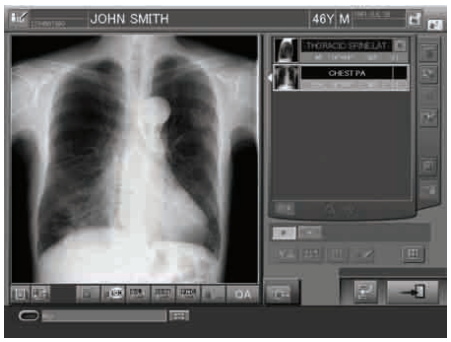
(2) Image Delivery ([3.7 Image Delivery])

From (1) Editing Images



"Study Execution Screen"

(3) Suspending Studies ([3.8 Suspending Studies]) and Completing Studies ([3.9 Completing Studies])



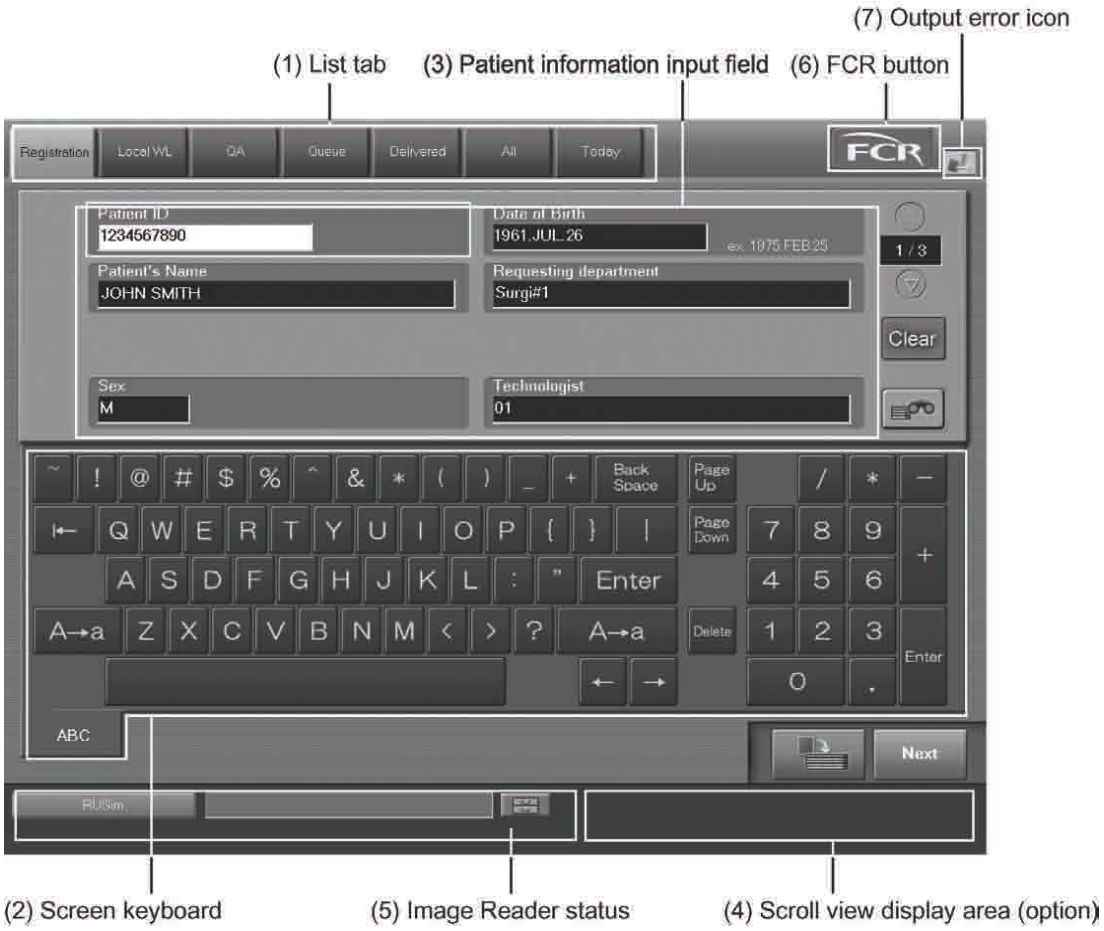
The study ended without completing image editing (QA) will be stacked in the QA list.

"Study Execution Screen"

To 2.2.1 Receiving Studies

2.2.5 Patient Information Input Screen

A screen for reception of studies. Performs patient information input.
By selecting the list tabs at the top of the screen, various lists can be displayed. (For more information about lists, see [Chapter 5. OPERATIONS - LIST].)
Explained herein is how to operate the list tab, screen keyboard and other input fields on the “Patient Information Input Screen”.



(1) List tab

Selecting the list tab on the screen top will allow you to display various kinds of lists.

Local WL : Displays the “Local WL” list. Studies that have already registered patient information, containing yet-to-be-read images, will be added to this list.

QA : Displays the “QA” list. Studies containing images already read, but yet-to-be-subjected to image editing (QA), will be added to this list.

Delivered : Displays the “Queue” list. Studies containing images already read, but yet-to-be-output (printout or delivery), will be added to this list.

Queue : Displays the “Delivered” list. Studies that contain images already read and output (printout or delivery) will be added to this list.

All : Displays the “All” list. All studies saved in the CR Console database will be displayed in this list.

Today : Displays the “Today” list. All studies registered today will be displayed in this list.

(2) Screen keyboard

Inputs characters in the patient information input field.

: Deletes one character to the left of the cursor.

: Deletes one character to the right of the cursor.

Space Bar : Enter one blank space.

: Moves the caret " **|** " to make space for one character to the left/right.

: Alternately switches upper- and lower-case letters of the alphabet.

: Determines the input data, and moves the caret " **|** " to the next box.

(3) Patient information input field

Inputs patient information.

Accession No. : Input the study number. (A maximum number of digits vary depending on the setting performed at installation.)

Reception No. : Input patient's reception number. (A maximum number of digits vary depending on the setting performed at installation.)

Patient ID : Input patient's ID number of the single byte. (A maximum number of digits vary depending on the setting performed at installation.)

Patient's Name : Input patient's name (a maximum of 64 characters).

Sex : Input patient's sex (M (0): male, F (1): female, O (2): other). You can use the User Utility to specify which of the selections for sex is to be determined as the default.

Date of Birth : Input patient's date of birth. The input format for the date is shown in the example below the input field.

Requesting department code : Input requesting department code (2 characters).*

Requesting department name : Input requesting department name (a maximum of 64 characters)*.

Technologist : Input a name of technologist.

Patient comment : Input comments on patient (a maximum of 1024 characters).

Physical disorder information : Input information on physical disability (a maximum of 64 characters).

Infection information : Input information on epidemic disease (a maximum of 64 characters).

Contraindication information : Input information on contraindication (a maximum of 64 characters).

Pregnancy : Input information on pregnancy (0: Not pregnant, 1: Possible to be pregnant, 2: Pregnant, 3: Unknown).

Height (cm) : Input height (cm).

Weight (kg) : Input weight (kg).

Phone number : Input phone number (a maximum of 16 characters).

Outpatient/Inpatient : Input whether outpatient or inpatient (0: Outpatient, 1: Inpatient).

Blood type (ABO) : Input blood type by ABO (0: A, 1: B, 2: AB, 3: O, 4: Unknown).

Blood type (Rh) : Input blood type by Rh (0: Rh+, 1: Rh-, 2: Unknown).

Comments on study : Input comments on study (a maximum of 1024 characters).

: Indicates page number of the patient information input field. turns one page backward, and turns one page forward.

: Clears patient information (except “Technologist”) input in the “Patient Information Input Screen”, and then returns to the top page of the patient information input field.

: Uses keywords to search for necessary patient information from the patient information database registered to the CR Console main unit so that it is displayed on the “Patient Information Input Screen”. (This is denominated the patient information database function.)

: Reserves a study based on the information input in the “Patient Information Input Screen”. A study thus reserved is displayed in the “Local WL” list.

: Terminates patient information input, and then displays the “Exposure Menu Selection Screen”.

NOTE(*)

Whether an input “Requesting department code” and an input “Requesting department name” are linked with each other or not will depend on the settings performed at installation.

(4) Scroll view display area (option)

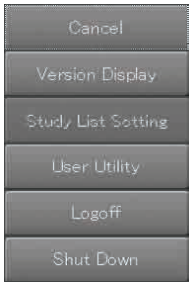
When the scroll view option is activated, the scroll view is displayed at the lower right corner of the screen. The scroll view is displayed on the “Patient Information Input Screen”, “Exposure Menu Selection Screen” and “Study Execution Screen”.
In the scroll view, you can check image reading status of a study whose image reading is processed in the background. From among studies stacked in the “Local WL” list, the scroll view displays status of studies that fall under the following conditions. For details of the scroll view, see [2.4 Scroll View Display Area (option)].

(5) Image Reader status

This displays operation status of the Image Reader connected to the CR Console and maintenance icons. Displayed Image Reader status will differ depending on the connected Image Reader. For details of Image Reader status, see [2.3 Image Reader Status].

(6) FCR button (FCR)

Selecting FCR will display a menu that is associated with the CR Console system. The displayed menu will differ depending on the settings performed at installation.



Displayed menus

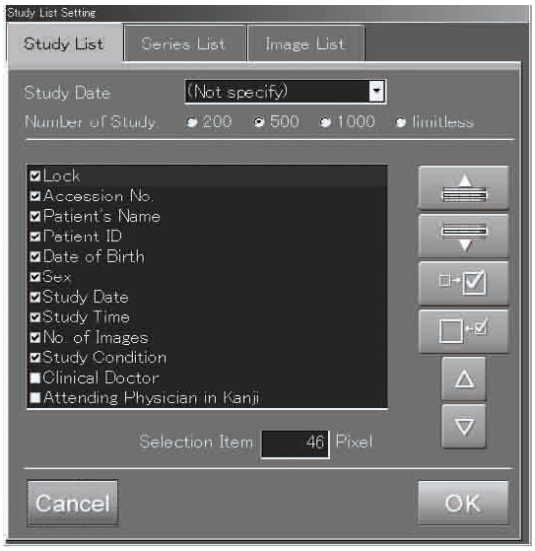
Major menu items displayed are explained below.

Cancel
Cancels the menu display.

Software version display
Displays the “Version information confirmation box”. For details, see [2.6 Version Display].

Study list setting

With this menu setting, you can display a dialog box with which information items in individuals lists are to be shown or hidden and the order of displaying those items is changed. This menu setting can be selected when each of the lists is displayed. For details of this study list setting, see [5.2 (16) Setting Study List].



"Study list setting dialog box"

User Utility

Before starting User Utility mode, the CR Console should be shut down.
For details of User Utility mode, see [CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

Logoff

This is to log off the user who is logged in from the CR Console.
For details of logoff, see [2.1.1 (2) Logoff].

System shutdown

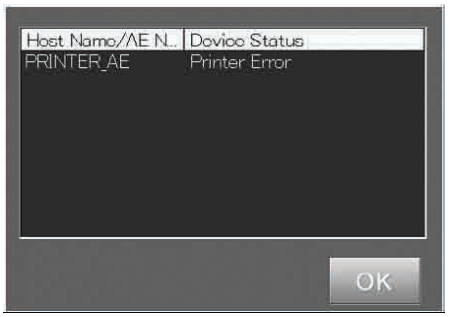
This is to end the system operation and shut off the power to the CR Console.
For details of system shutdown, see [2.1.2 Shutting Down the CR Console].

(7) If an Error Occurs on Destination Device

This icon appears at the upper right corner of the screen when an error occurs on a device targeted by the CR Console for image output or on the communication with other devices connected to the CR Console.

Select .

The “Error display box” is displayed.

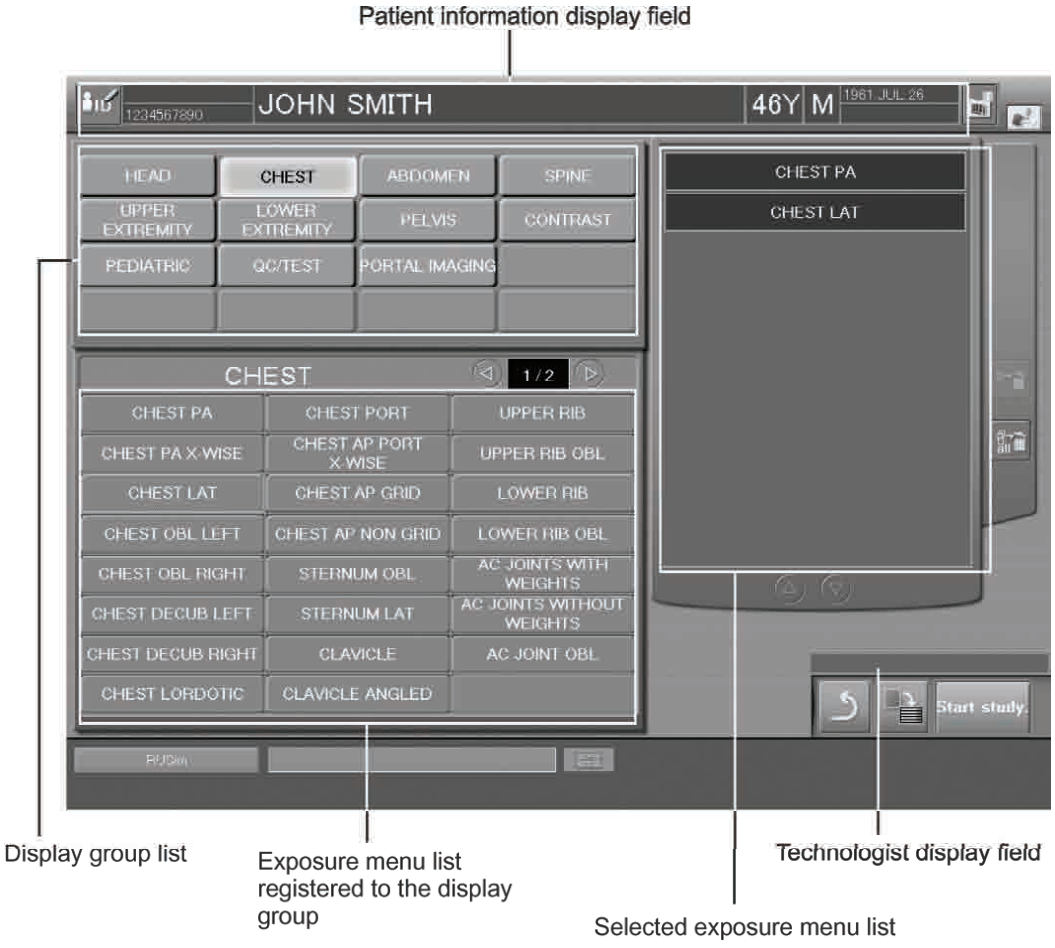


“Error display box”

Check the device status, select OK, and then take an appropriate action.

2.2.6 Exposure Menu Selection Screen

This is a screen for receiving studies. Performs operations of selection of exposure menus.



Patient information display field : Displays patient information.

Technologist display field : Displays the name of logged-in technologist.
Whether a technologist (user) name is displayed or not in the "Technologist display field" depends on the setting performed at installation.

Display group list : Selects a display group.
Exposure menus registered to the display group selected here will be shown in the "Exposure menu list registered to the display group". Exposure menus registered to the "Display group list" can be edited as necessary using the User Utility. For more information, see the [CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

Exposure menu list registered to the display group : Displays exposure menu of the selected exposure region.
Select exposure menu(s).

Selected exposure menu list : Exposure menus selected in the "Exposure menu list registered to the display group" are displayed in this list. Moving up and down the "Selected exposure menu list" with any exposure menus selected accordingly will allow you to change order of selected exposure menus.

: Displays the page number of the exposure menu list by region.
turns to previous page, and turns to next page.

: Modifies patient information.

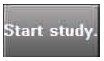
: Scrolls the selected exposure menu list.

: Deletes an exposure menu selected in the "Exposure menu list registered to the display group".

: Deletes all exposure menus included in the "Exposure menu list registered to the display group".

: Cancels setup data on the Patient Information Input Screen and the Exposure Menu Selection Screen, and terminates the current study. Returns to the Patient Information Input Screen.

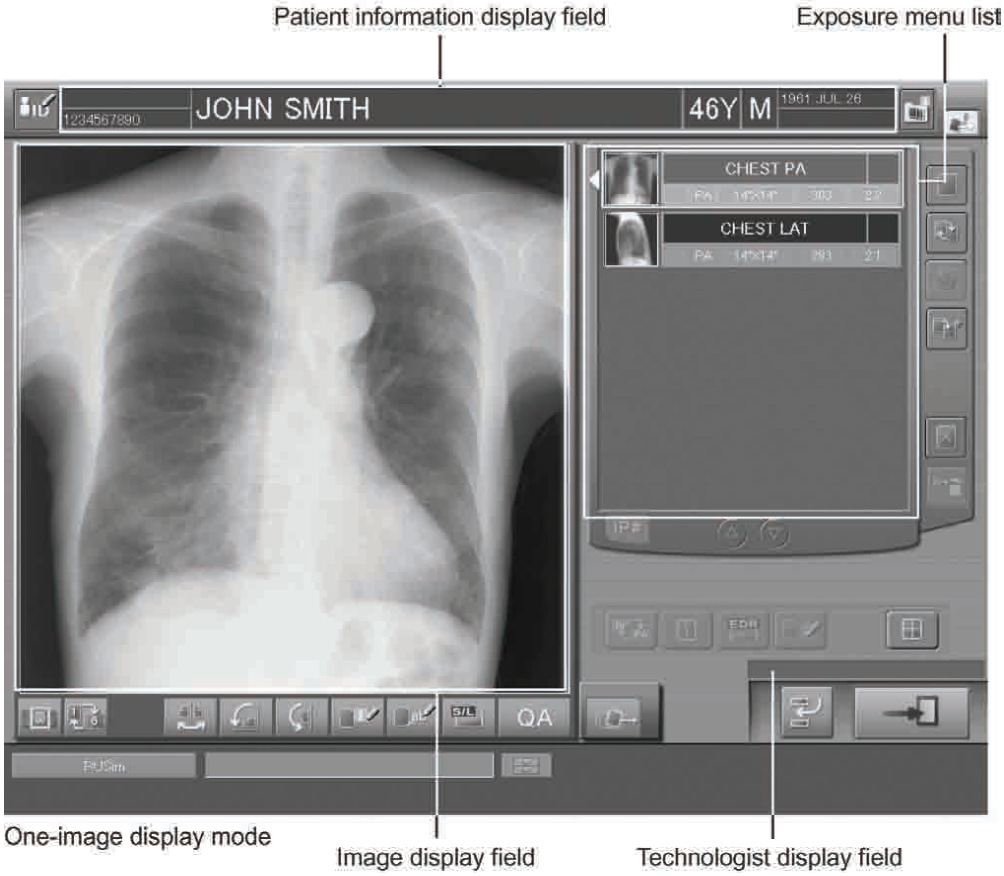
: Reserves a study. The "Patient Information Input Screen" accepts the next study continuously. A study thus reserved can be selected from the "Local WL" list to restart.

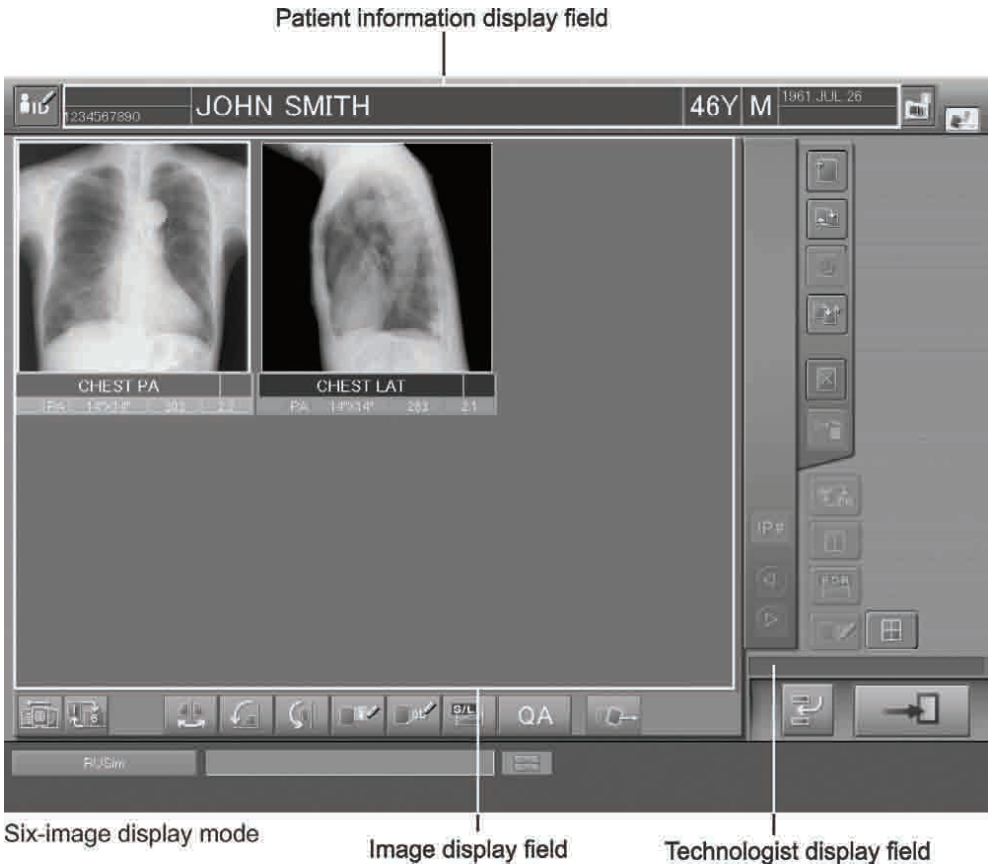


: Starts executing a study. When a study is started, the "Study Execution Screen" displays. Prior to starting a study, make sure that the selected exposure menu is correct.

2.2.7 Study Screen

This is a screen for executing a study. On this screen, you can read images and have various kinds of image processing be reflected on those images.
The “Study Execution Screen” display offers one-image display mode and six-image display mode. A maximum of six images can be displayed in six-image display mode at the same time. When starting a study, you can use the User Utility to select a desired mode for image display. Shown herein are samples and explanations of image display in individual modes.





Patient information display field : Displays patient information.

Technologist display field : Displays the name of logged-in technologist. Whether a technologist (user) name is displayed or not in the "Technologist display field" depends on the setting performed at installation.

Image display field : When one-image display mode is selected, an image read from an IP is displayed here. When six-image display mode is selected, images are displayed in the order below: Starting from the top left → top center → top right → bottom left → bottom center → bottom right. Connected Image Reader and registered IP number will be displayed in this field before image reading session.

Exposure menu list (one-image display) : This list shows exposure menus selected on the "Exposure Menu Selection Screen". Moving up and down the "Exposure menu list" with any exposure menus selected accordingly will allow you to change order of selected exposure menus.

: Displays a menu for which the patient information is modified.

: Adds exposure menus and displays the “Exposure Menu Addition box”.

: Changes exposure menus and displays the “Exposure Menu Change box”.

: Performs auto-repeat exposure. Exposures can be performed repeatedly using the exposure menu same as the selected one.

: Handles a read image as a rejected one.

: Adds the same exposure menu as the selected one.

: Deletes exposure menus.

: Scrolls the image display field list.

: Before exposure (image reading session), checks and changes, as necessary, exposure parameters used for the exposure menu. The exposure parameter selection box is displayed.

: Changes film format. The format change is possible either before or after image reading.

: Displays images in monitor mode.

: Switches display mode alternately to six-image display mode.

: Edits image information.

: Temporarily suspends the auto-distribution function of images.
This icon is displayed only when the auto-distribution function by the User Utility is determined to be “Automatically distribute images to all attributes whenever an image is read.” or “Distributes only print attribute automatically at each reading time.”. In other cases, it is not displayed.

: Delivers images individually.
This icon is displayed only when the auto-distribution function by the User Utility is determined to be “Distributes all attributes individually.” or “Distributes Print attribute only individually.”. In other cases, it is not displayed.

: Disables the auto-distribution function of images when a certain period of time has passed after an image is read.
This icon is displayed only when “After image reading, Print attribute is output automatically when a time passes. On the "Delay Time" setting unit, specify a time for output of Print attribute.” is specified. In other cases, it is not displayed.

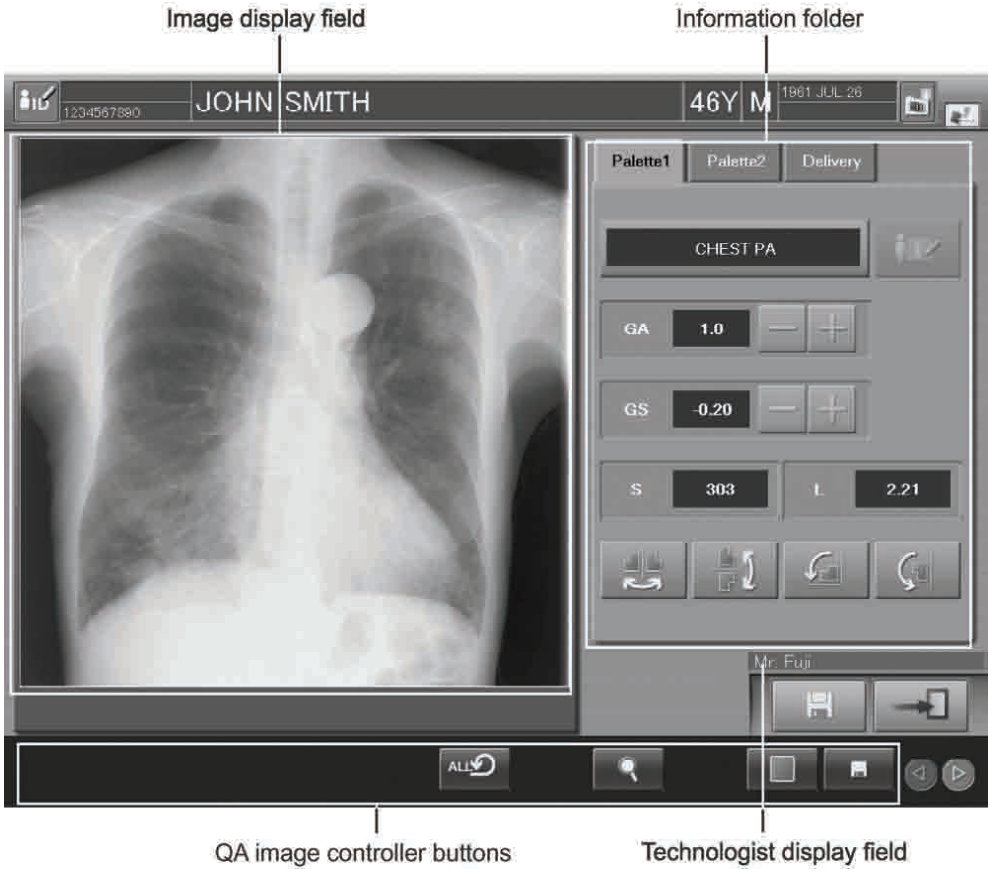
: Distributes the image immediately after image reading session, without awaiting a certain period of time has passed.
This icon is displayed only when “After image reading, Print attribute is output automatically when a time passes. On the "Delay Time" setting unit, specify a time for output of Print attribute.” is specified. In other cases, it is not displayed.

: Specifies priority output.

: Completes or suspends a study.

2.2.8 Image Edit Screen

This is a screen for editing image information by an image level and also by a study level. For image information editing by an image level, processing such as image information editing and film output will be performed on images read on the “Study Execution Screen”.
For image information editing by a study level, processing such as image information editing and image output will be performed on images of a study for which the exposure has already been completed.



Technologist display field : Displays a name of logged-in technologist.
Whether a technologist (user) name is displayed or not in the “Technologist display field” depends on the setting performed at installation.

Image display field : Displays the image to be edited.

Information folder : Edits information in each folder.

QA image controller button : Operates various utility functions (Magnifying display image/ Alternately switching image processing type /Reprinting display image/Setting failed image/Locking study/Saving image/Outputting DICOM files)

* : Saves edited image information.

* : Terminates image information editing and returns to the previous screen.

* The displayed button and its operation differ depending on the settings performed at installation. For details, see “4.6 Completing Image Edit”.

NOTE

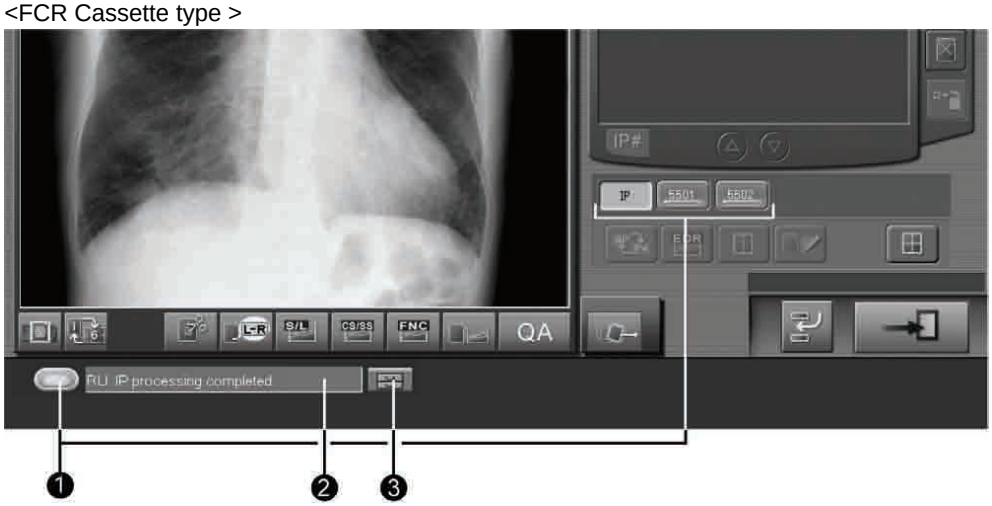
- Displaying either or / varies depending on the setting performed at installation. When / is displayed, select and then to reflect the setting.

Display property settings of QA buttons in a palette or QA image controller buttons can be set in "User Utility".
Refer to [Chapter 10 CUSTOMIZING THE SCREEN DISPLAY / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

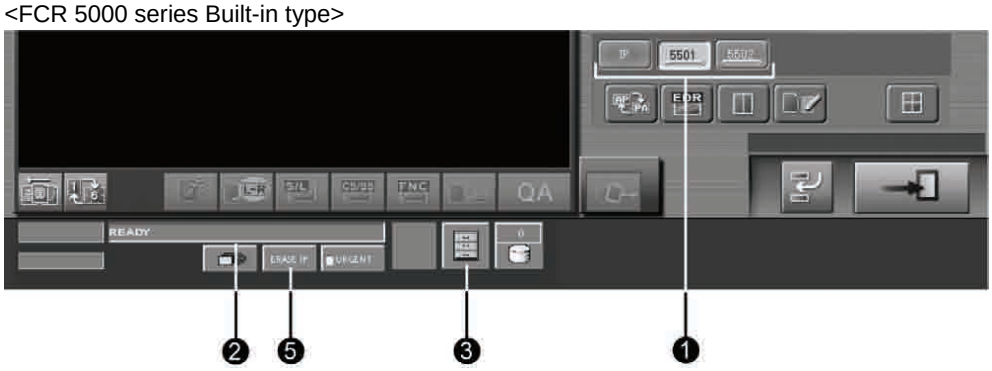
2.3 Image Reader Status

This function allows you to verify status of the connected Image Reader by checking it in the field at the bottom of the screen. Image Reader status is displayed differently depending on the connected Image Reader. Presented below are some sample displays of Image Reader status and related explanations.

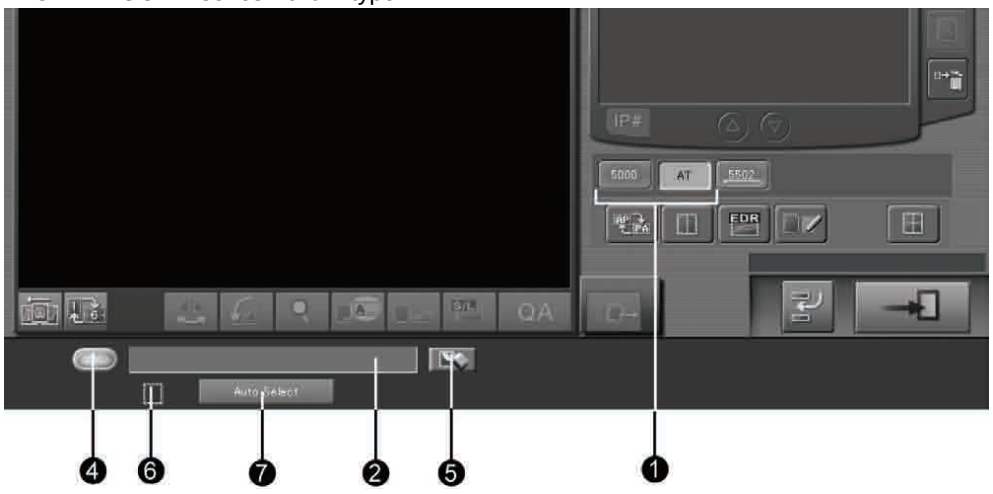
<FCR Cassette type >



<FCR 5000 series Built-in type>



<FCR VELOCITY series Built-in type>



❶ Selectors

When multiple Image Readers are connected, use these selectors to switch the status display alternately. (In the case of six-image display mode, selectors are displayed at the upper right of the screen.)

<Example : FCR Cassette type selectors>

<Example : FCR 5000 series Built-in type selectors>

<Example : FCR VELOCITY series Built-in type selectors>

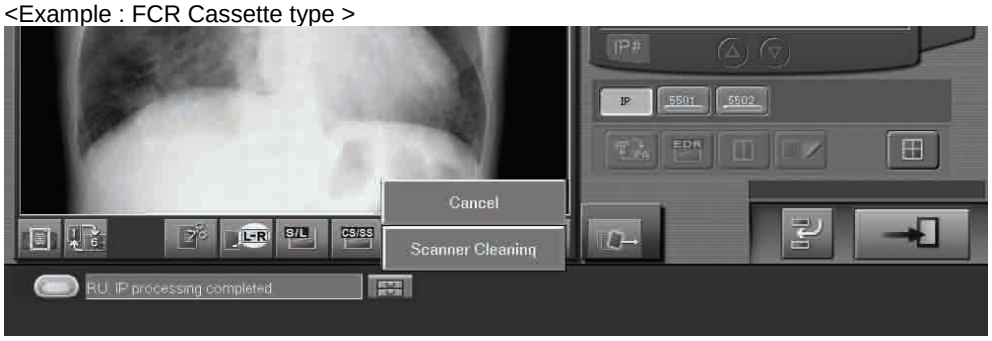
❷ Operation status

Shows status of operation of the Image Reader.

❸ Maintenance icon

Select this icon to display menus and select the “Scanner Cleaning” menu when the scanner of the Image Reader needs to be cleaned (e.g., when a noise appears on read images).
After selection of the menu, refer to the operation manual of the Image Reader about cleaning operations.

<Example : FCR Cassette type >



❹ Shot enabled/disabled

Indicates whether the FCR VELOCITY series Built-in type is enabled or disabled to take shots. Shots are enabled when in on status and disabled when in off status.

❺ IP erasure

Select this icon if you wish to erase images without reading IP images, for example due to an exposure error.

❻ Grid used or not

Shows whether the grid is used or not.

❼ Erasure mode

Whether it is possible or not to select erasure mode depends on the setting performed at installation.

When the FCR VELOCITY or FUJIFILM Unity SpeedSuite is selected by the selector manipulations:

[Auto sensitivity change] : Changes the system operation automatically to the erasure mode set up for each exposure menu.

[High-sensitivity exposure] : The system operation is in the normal erasure mode (High-sensitivity <low-dose> exposure mode). If this button is selected with the [Auto sensitivity change] mode activated appropriately, this [High-sensitivity exposure] mode is enabled regardless of erasure mode set up for the exposure mode.

When FCR Velocity Ufp is selected by the selector manipulation:

[Auto sensitivity change] : The system operation is in the High-speed erasure mode (normal exposure mode).

[High-sensitivity exposure] : The system operation is in the normal erasure mode (High sensitivity <low-dose> exposure mode).

❽ IP Evacuation Button

Whether it is possible or not to use the IP evacuation button depends on the setting performed at installation. When the CR Console is connected to an FCR 5000 series built-in type Image Reader, if this button is pressed for an exposure with the cassette placed in front of the exposure unit, the IP that is within the Image Reader will be evacuated automatically.
When manipulating selector change, be sure to select [IP] same as with any other cassette-type Image Readers.

NOTE

For an exposure using the cassette on an FCR 5000 series built-in type Image Reader:
When performing an exposure with the cassette placed in front of the exposure unit, be sure to evacuate the IP appropriately. For an exposure performed without evacuating the IP, make sure to subject it to erasure processing before performing an exposure the next time on the built-in type Image Reader.

<Example of displaying IP evacuation button display>

2.4 Scroll View Display Area (option)

When the scroll view option is activated, the scroll view is displayed at the right-side bottom of the screen. The scroll view is displayed in the “Patient Information Input Screen”, “Exposure Menu Selection Screen”, “Study Execution Screen” and in the individual lists.
In the scroll view displayed at the right-side bottom of the screen, you can confirm image reading status of a study that processes image reading in the background.
Of the studies stacked in the “Local WL” list, studies to be displayed in the scroll view are:

- Those for which image reading processing is not completed yet after the IP registration of all exposure menus.

Exposure menus for which no IPs are registered will not be displayed in the scroll view, even when there are exposure menus whose image reading session has not been completed yet.
When multiple studies that meet such conditions are stacked in the “Local WL” list, the latest out of those studies will be displayed in the scroll view.
The scroll view function is available in common to the “Patient Information Input Screen”, “Exposure Menu Selection Screen”, “Study Execution Screen” and the individual list tabs.
For how to resume a study from the scroll view, see [3.3.1 (4) Starting Studies from the Scroll View (option)].

NOTE

Setting for auto-distribution function when the scroll view option is activated.

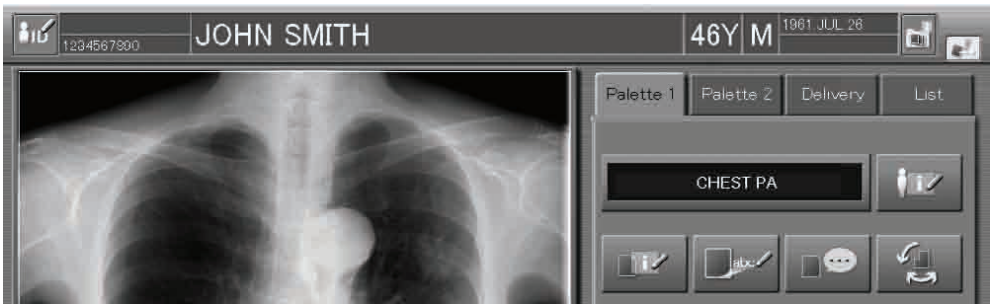
- With the scroll view option activated accordingly, “After image reading, Print attribute is output automatically when a time passes. On the “Delay Time” setting unit, specify a time for output of Print attribute.” is selected in the “Auto-distribution Setting” of the User Utility. When it is selected, specify a time when the auto-distribution function is enabled. No other settings are allowed in this section. For how to resume a study from the scroll view, see [Chapter 4 PROPERTY SETTING / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

2.5 Study Information List

You can view detailed study information in the “Study information box” that was opened.
The “Study information box” is available in common to the “Exposure Menu Selection Screen”, “Study Execution Screen”, “Image Edit Screen” and the individual lists excepting the “Queue” list.

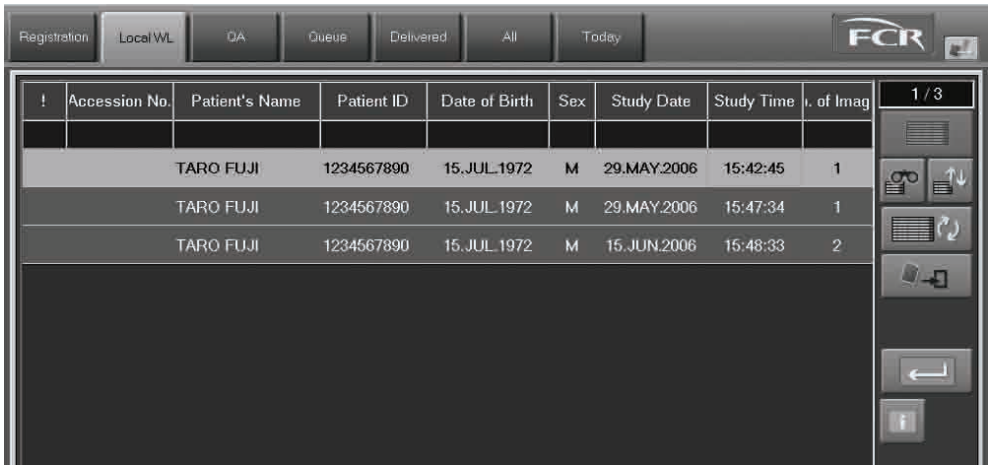
(1) Display from the “Exposure Menu Selection Screen”, “Study Execution Screen” and “Image Edit Screen”

Display a study targeted for processing and then select .

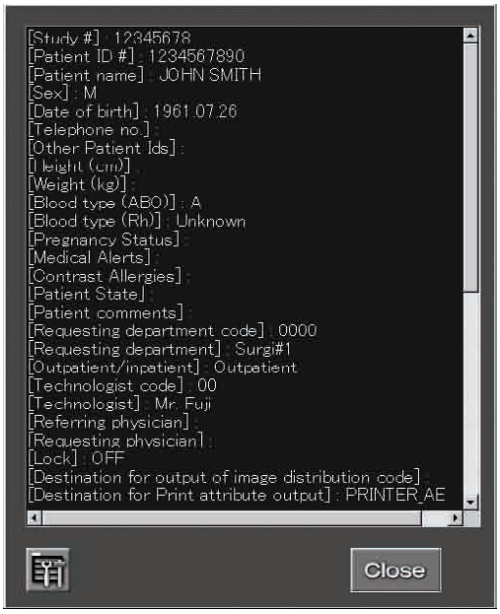


(2) Display from individual lists other than the “Queue” list

Select a target study and then select .


Registration
Local WL
QA
Queue
Delivered
All
Today
FCR
1 / 3
! Accession No. Patient's Name Patient ID Date of Birth Sex Study Date Study Time No. of Imag
TARO FUJI 1234567890 15.JUL.1972 M 29.MAY.2006 15:42:45 1
TARO FUJI 1234567890 15.JUL.1972 M 29.MAY.2006 15:47:34 1
TARO FUJI 1234567890 15.JUL.1972 M 15.JUN.2006 15:48:33 2

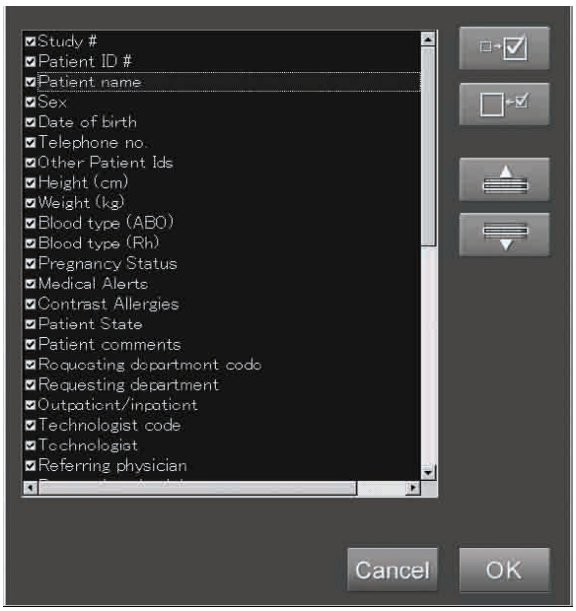
The “Study information box” opens.
You can customize information items as needed. When customizing study information, you can specify whether or not to display specific information items or change order of the item display.
After you have viewed study information or customized information items, select Close.



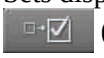
“Study information box”

To customize information items, select .

The “Customization box” is displayed.
Perform the following operations as needed and then select OK.



“Customization box”

Display/Non-display :
Sets display/non-display of information items. After selecting a target item from the list, select  (Display)/ (Non-display). Checked items will be displayed, and unchecked items will not be displayed.
You can also check or uncheck a study information item by directly selecting checkbox of the target item. Specify whether or not to display a study information item and then select .

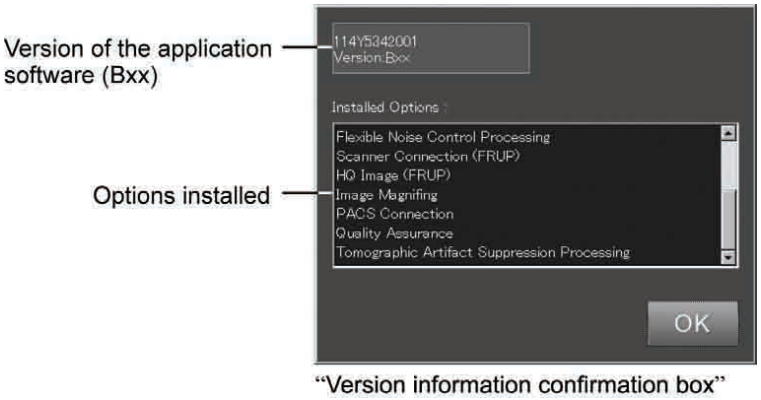
Display order change :
Changes display order of information items. After selecting a target item from the list, select (moves upward)/ (moves downward).

: Cancels operation.

2.6 Version Display

The “Version information confirmation box” opens. In this box, you can confirm version of the CR Console application software and installed optional software items.

A confirmation box is displayed.



“Version information confirmation box”

Check the contents, and then select OK.

FUJI COMPUTED RADIOGRAPHY

Chapter 3

OPERATIONS STUDY

3.1 Receiving Studies

3.1.1 Inputting Patient Information

Inputs patient information as follows.
All of the patient information items need not be input necessarily. Input in any one of the items in order to proceed to the next operation.
The patient information (either Patient ID or Patient Name is necessarily input.), once received, is automatically registered to the database. The previously registered patient information can be called up from the database and displayed on the “Patient Information Input Screen” as desired.

(1) Inputting Patient Information in the “Patient Information Input Screen”

Input data to each item of patient information in the patient information input field.
After inputting characters, select Enter or press the ENTER key (or TAB key) on the keyboard.
The caret “ | ” for character input will move to the next input box.
As patient information can also be input on the Exposure Menu Selection Screen or Study Execution Screen later, you can proceed the operation without inputting any patient information at this step.

■ To correct wrong input

Described below is how to correct characters input in the entry fields on the “Patient Information Input Screen”.

When a keyboard is used :

As generally practiced in PC operation, use the BackSpace key to erase the input character immediately before the caret and modify it. Or move the caret “ | ” using the arrow key to the character you want to correct.

When a screen keyboard is used :

Use the arrow keys to move the caret “ | ” immediately after the character you want to correct, and select Back Space. The character immediately before the caret “ | ” will be erased. Or move the caret “ | ” to immediately before the character you want to correct, and select Delete. The character immediately after the caret “ | ” will be erased. Make then necessary corrections accordingly.

■ **Operation of the input items for which selection buttons are displayed**

When the caret " **|** " for character input moves to boxes such as Sex, Requesting department, Technologist, Pregnancy, Outpatient/Inpatient, and Blood type, a tab for data setting is displayed at the lower left of the screen keyboard. For example, when the caret " **|** " is at the Sex input box, the "Sex" tab is displayed as shown below.

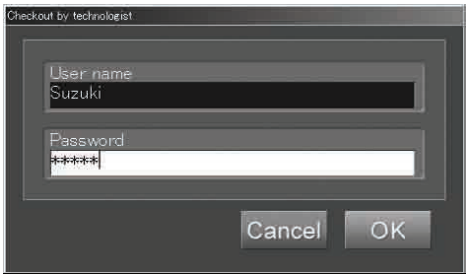
Indicate any of them, and select [↵]. Then, the "Sex" tab is closed to complete the input.

As for items other than Technologist (Sex, Requesting department, Pregnancy, Outpatient/ Inpatient, Blood type), you can input arbitrary characters.

For example, when inputting Sex, select the "ABC" tab to input "M" from the screen keyboard or a value that is for the sex ([0] (zero) or [M] for Male) at the press of the equivalent key on the keyboard. For more information about a value to be input, see [2.2.5 Patient Information Input Screen].

■ **If the “Checkout by technologist box” opens when changing the technologist displayed in the “Technologist input box”**

When the user authentication has been specified according to the setting performed at installation, the logged-in technologist is entered as the default in the Technologist input box.
When another technologist (user) is selected, the “Checkout by technologist” dialog like that shown below appears.
Input the “User name” and “Password” after another technologist has been selected and the logged-in technologist (user) will then be changed alternately.



“Checkout by technologist dialog box”

Cancel : Cancels operation.

(2) Ending Input of Patient Information to Display the “Exposure Menu Selection Screen”

After completing input of patient information, select Next. The patient information input is then finished to proceed to the exposure menu selection step.

When is selected, a received study can be reserved as an unexecuted study. The reserved study is stacked to the “Local WL” list.

NOTE

Whether input of Requesting department code/Requesting department name is correlated with each other on not varies depending on the setting performed at installation.

3.1.2 Patient Information Database function

Inputs or deletes the patient information already registered to the database by executing keyword retrieval/list retrieval. (The patient information database can be shared with other CR Consoles via the dedicated server or standalone for this CR Console, depending on user's own environments.)

(1) Input by keyword retrieval

Retrieves (inputs) patient information from the database using a one of the following items as a keyword. Items to be used as keyword are those having the caret " **|** " for character input. When inputting multiple items, only items with the caret " **|** " can be available as keyword.

<Items to be served as keyword>
• Patient ID
• Patient name
• Date of Birth
• Phone number

Input one of the items and select . Retrieval of patient information that is for the input item will be executed. If a Patient ID# is input as a keyword, retrieval is possible by pressing the Enter key.

■ To retrieve patient information by inputting part of a keyword

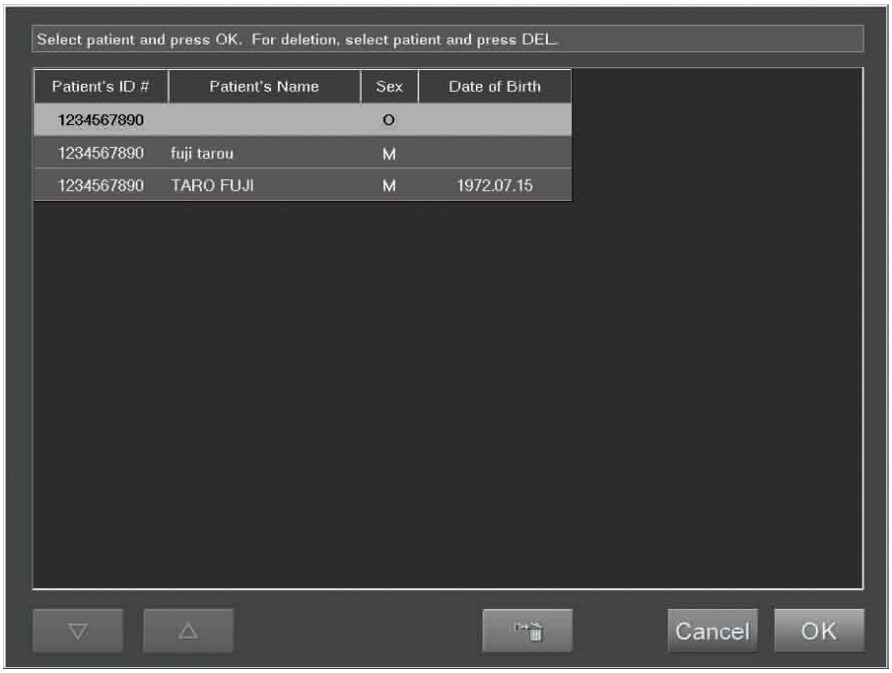
If the input string in each item does not agree with the registered string completely, the retrieval processing is valid. Thus, by using this feature, a fuzzy retrieval can be executed.
(A fuzzy retrieval processing is not valid for Date of Birth.)

In case of using Patient ID for a fuzzy retrieval, inputting a wildcard " * " or " % " is required.
Examples > Input "123*" at the Patient ID box to retrieve all patients whose first three places of Patient ID are "123".
> Input "JOHN" at the Patient's Name field to retrieve all patients named "JOHN".

(Sample of a fuzzy search performed by inputting "JOHN" in the Patient Name field)

When the hit patient information result is only one, it will be displayed automatically after the completion of retrieval processing.

When a multiple number of patient information are found for the corresponding item, the patient information selection box will be displayed after the completion of retrieval processing.
Select desired patient information and select OK. The patient information will be input.



"Patient information selection box"

: Deletes patient information.

/ : Scrolls patient information.

Cancel : Cancels operation.

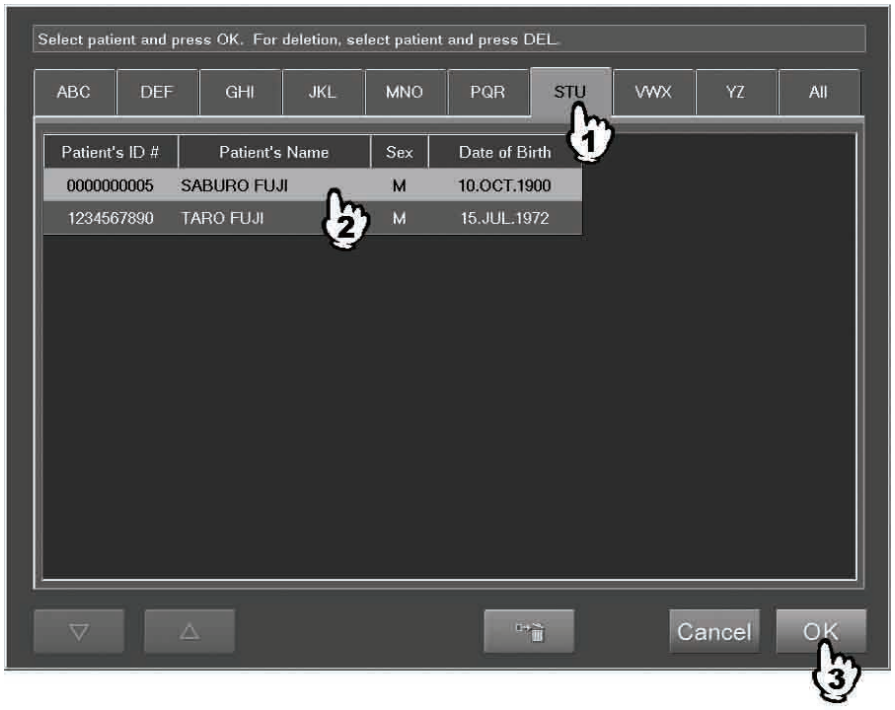
(2) Input by list retrieval

Displays a list of patient information registered in the database and then retrieves (inputs) patient information in the list.

Select without any input item in the patient information input field. (If the caret " **|** " for input characters is in a place other than "Patient ID/Patient Name/Date of Birth/Phone Number", is grayed out and cannot be selected.)

The patient information selection box will be displayed.

Select the group folder tab to display desired patient information, select the patient information, and then select OK. The patient information will be input.



"Patient information selection box"

: Deletes patient information.

/ : Scrolls patient information.

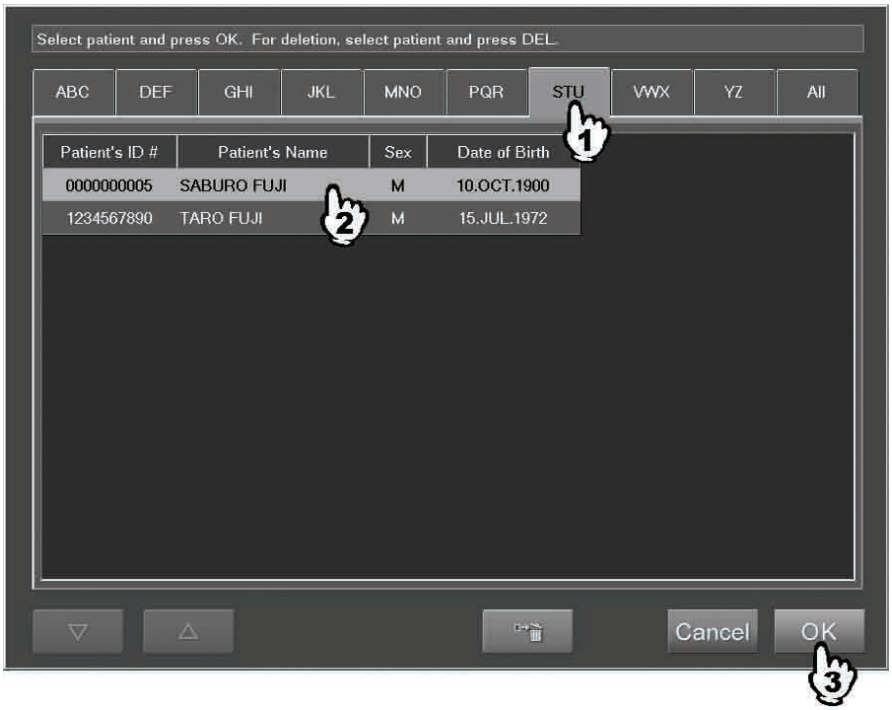
: Cancels operation.

(3) Deletion

Deletes unnecessary patient information from the database.
It is possible for you to delete unnecessary patient information from the list of patient information items registered to the database and displayed in the “Patient Information Selection box”.

Select with no data input in the patient information input field of the “Patient Information Input Screen” or by inputting keywords for fuzzy retrieval. The “Patient Information Selection box” will then be displayed.

Display the patient information to be deleted in the patient information selection box by performing operations of “Input by keyword retrieval” or “Input by list retrieval”, select the patient information, and then select . The patient information will be deleted accordingly.



“Patient information selection box”

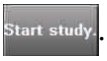
3.1.3 Selecting Exposure Menu

Selects an exposure menu as follows.
When the patient information input is completed, the exposure menu selection box is displayed. Select a menu item in the menu group to display the desired exposure menu, and then select an exposure menu (more than one menu can be selected). The selected exposure menu(s) is displayed in the selected exposure menu list on the right side of the screen.

: Displays page number of the exposure menu selection button.
turns one page backward, and turns one page forward.

Change order: To change order of selected exposure menus, move a desired menu up or down on the exposure menu list.

Scroll : Select / to scroll the selected exposure menu list.

Confirm that the exposure menu selection is correct, and then select  .

This finishes selection of exposure menu, and proceeds to the next step.

"Exposure Menu Selection Screen"

: Cancels the settings on the Patient Information Input Screen and the Exposure Menu Selection Screen. Then, ends the current study to return to the Patient Information Input Screen.

: Reserves a received study as an unexecuted study. Displays the Patient Information Input Screen to receive the next study. The reserved study is stacked to the "Local WL" list. For how to perform an already-reserved study from the "Local WL" list, see [3.3.1 (2) Starting Studies from the "Local WL" List].

3.2 Confirming Study Details

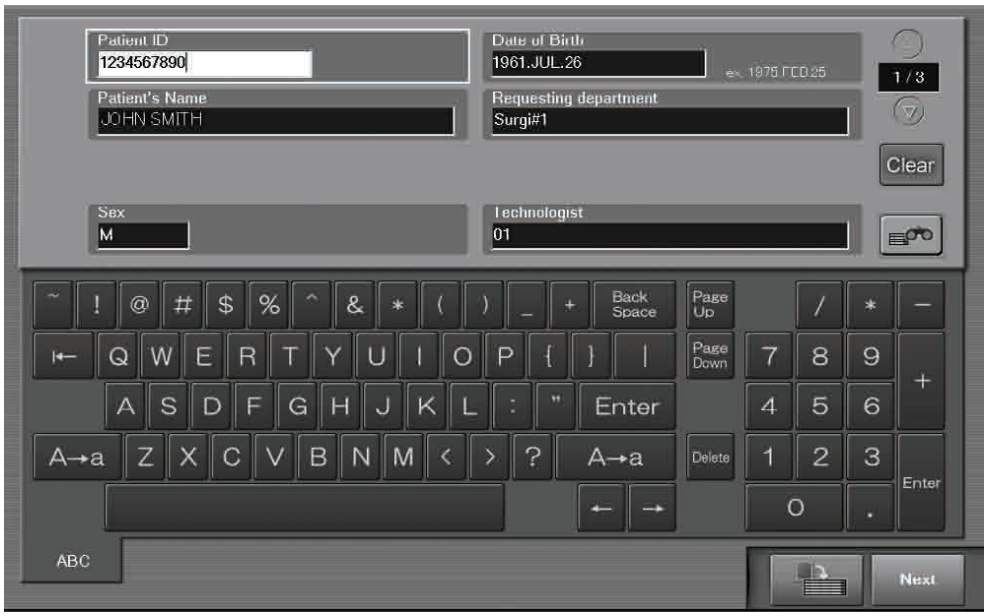
If patient information of a certain study is corrected when multiple studies are being started at the same time, such a correction is reflected accordingly on patient information of other selected studies.

3.2.1 Modifying Patient Information

Modifies the patient information for the current study. Modification of the patient information is a function used in common to the Exposure Menu Selection Screen and Study Execution Screen. (When the user authentication has been specified according to the setting performed at installation, the user is allowed to limit the use of this function. For details, refer to [Chapter 3 TABLE SETTING / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].)
Select . Exposure menus will be displayed if settings are determined to issue a patient ID automatically. Select then Patient's Information.

Exposure Menu Selection Screen :

The patient information input box is displayed.
Modify the patient information as necessary, and then select OK.



"Patient information input box"

For more information about the patient information to be input in the “Patient information input box”, see [2.2.5 Patient Information Input Screen].

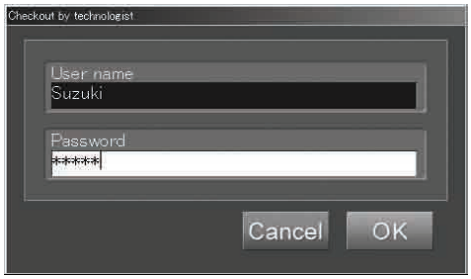
: Inputs patient information using the Patient Information Database function.

: Terminates the current study and proceeds to the patient information input of the next study. Do not select this key when modifying the patient information. Note that this icon is displayed only when patient information is to be modified on the Study Screen.

Cancel : Cancels operation.

■ If the “Checkout by technologist box” opens when changing the technologist displayed in the “Technologist input box”

When the user authentication has been specified to be used according to the settings at installation, an attempt to change the technologist (user) in the “Technologist” field will display the “Checkout by technologist box”. This box displays user name with which the user logged in the program and the password.



“Checkout by technologist dialog box”

Input the “User name” and “Password” after another technologist has been selected and select OK. The technologist (user) for an exposure menu whose images have not yet been read will then be changed to the logged-in technologist (user) alternately.

Cancel : Cancels operation.

■ Precautions to observe when changing the technologist information

When changing information included in the “Technologist” field, technologist information printed at film output will differ as shown below, whether or not images have been read to an exposure menu that is halfway through the study. (Note that the “Study Execution Screen” displays the changed technologist name.)

Exposure menu for which the technologist was changed from “A” to “B” before image reading:
Technologist “B” will be printed on film because the result of technologist change processing was reflected appropriately.

Exposure menu for which the technologist was changed from “A” to “B” after image reading:
Technologist “A” will be printed on film because the result of technologist change processing was not reflected appropriately.

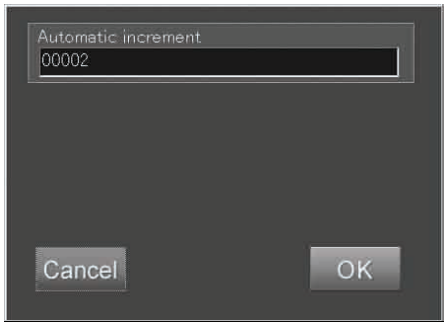
3.2.2 Resetting the patient ID issuance

This function automatically issues a patient ID when a new study is initiated.
User Utility is responsible for performing this function.
For details, refer to [Chapter 10 CUSTOMIZING THE SCREEN DISPLAY / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

How to issue a patient ID complies with what is determined by the setting performed at installation. When the patient ID issuance format includes “User-specified character string” or “Automatic increment”, necessary values can be set up as follows. The values thus set up will remain effective for a patient ID to be issued the next.

Select to display the exposure menus and then select Reset patient ID# issuance.

The patient ID edit box appears.
Edit values as necessary and select OK.



“Edit box”

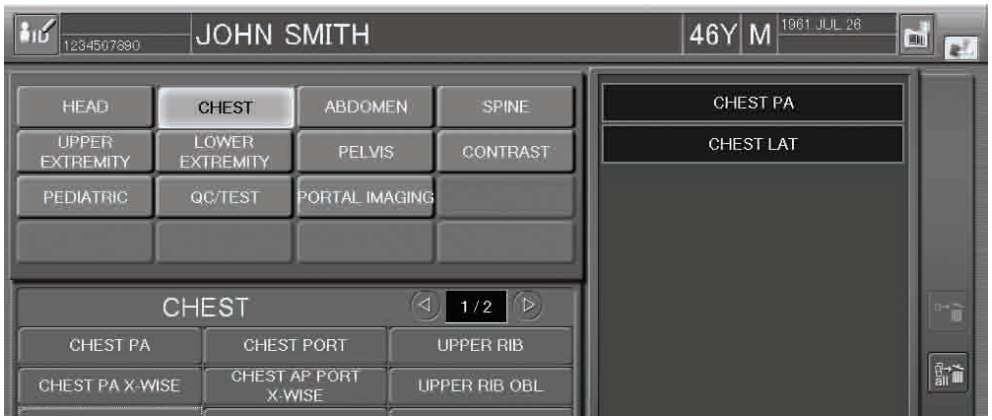
Cancel : Cancels operation.

3.2.3 Modifying Exposure Menu

Adds, changes, or deletes an exposure menu as follows.

(1) Adding Exposure Menus

To add exposure menus on the “Exposure Menu Selection Screen”, use this function with no exposure menus selected in the “Selected exposure menu list”. For how to operate processing for selection of exposure menus, see [3.1.3 Selecting Exposure Menu].

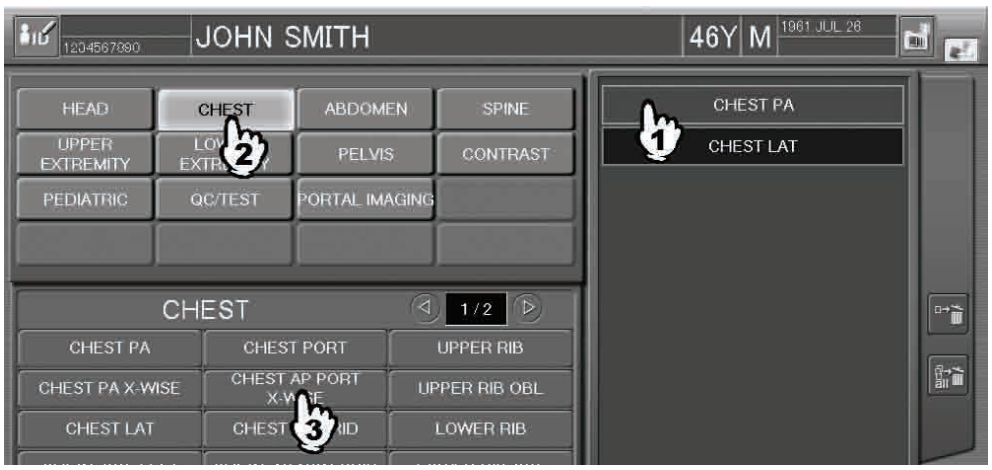


NOTE

Make sure that no exposure menus have been selected in the “Selected exposure menu list”, and then add exposure menus. An attempt to operate selection of exposure menus, with exposure menus selected in the “Selected exposure menu list”, will result in adding those already-selected exposure menus to menus to be newly added in the list.

(2) Changing Exposure Menus

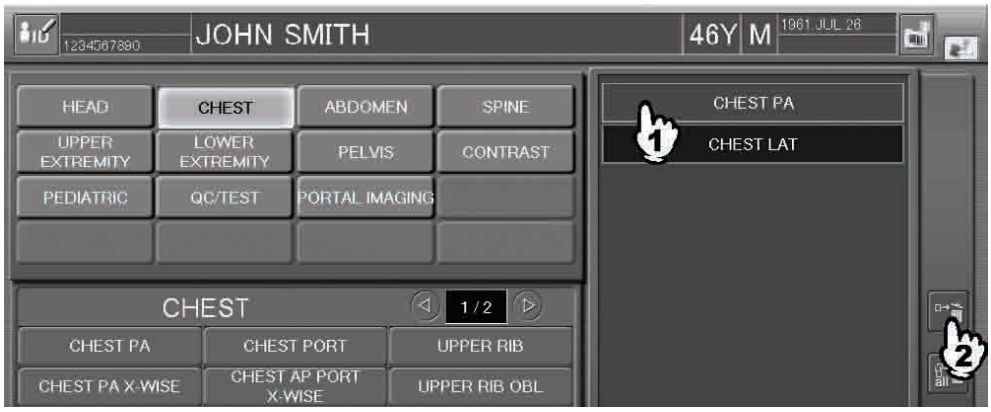
To change an exposure menu on the “Exposure Menu Selection Screen”, select an exposure menu you want to change from the “Selected exposure menu list” and then perform manipulation necessary to actually changing the selected exposure menu. For how to select an exposure menu, see [3.1.3 Selecting Exposure Menu].



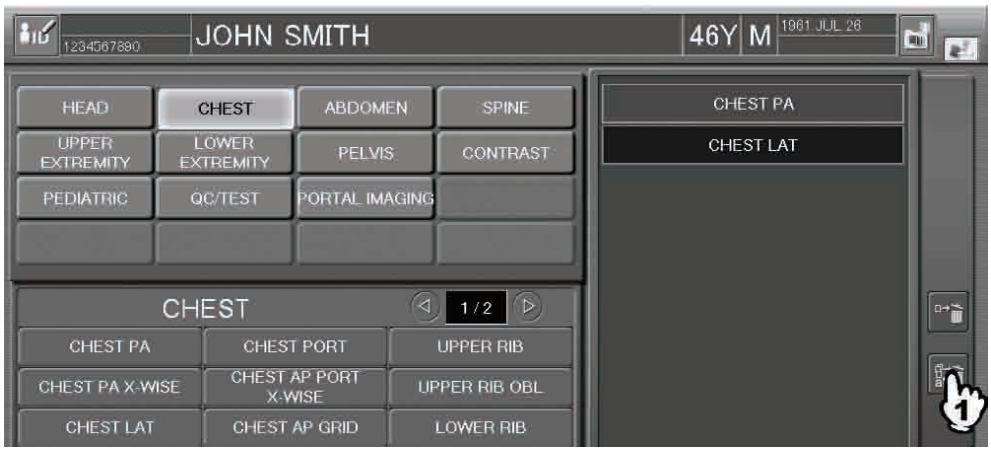
(3) Deleting Exposure Menus

Deletes exposure menus as follows.

To delete a specific exposure menu, select it, and then select .



To delete all the exposure menus, select .



3.3 Executing Studies

Starts already-received studies and reads images on the “Study Execution Screen”. Described herein are operations for the execution of studies.

3.3.1 Starting a Study

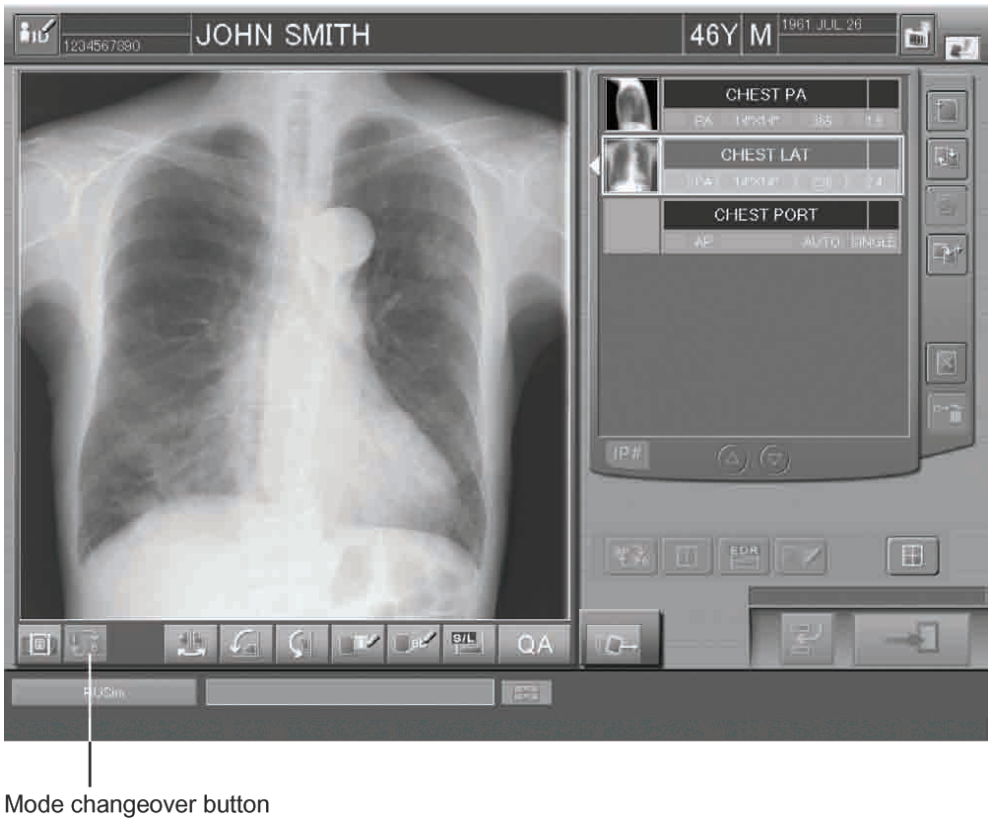
Displays the Study Execution Screen and starts a study. Perform appropriate operation depending on the screen currently displayed.

(1) Starting Studies from the Exposure Menu Selection Screen

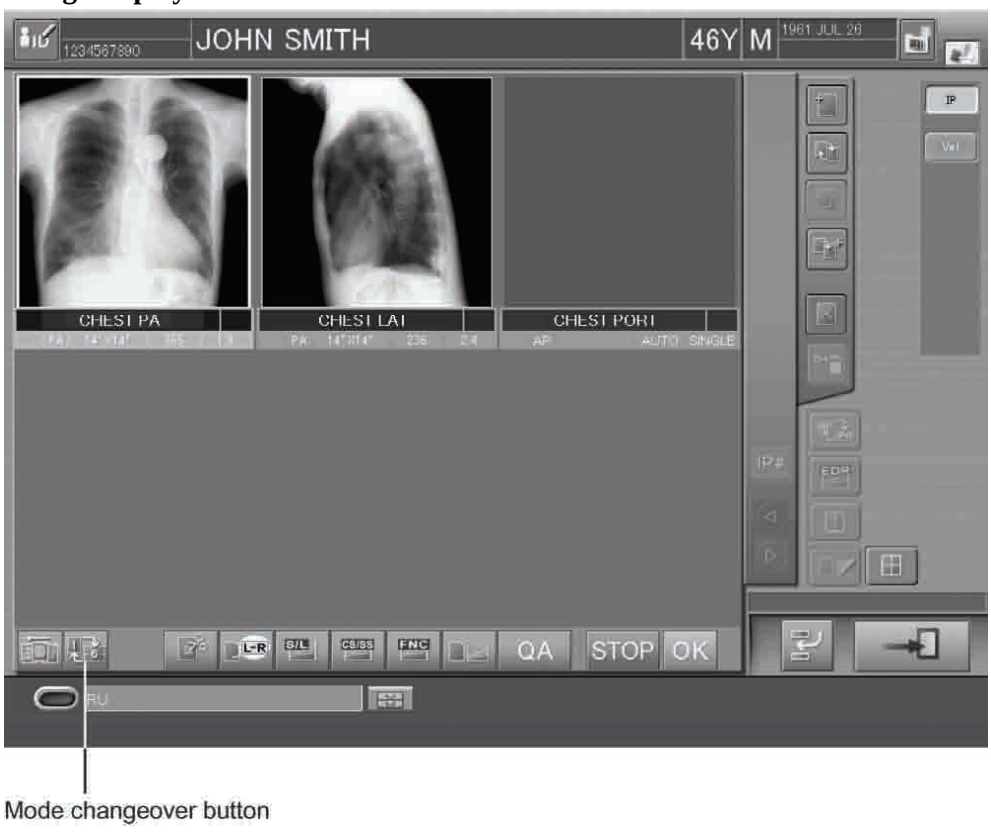
Start a study that underwent necessary processing in “Receiving Studies” and “Confirming Study Details” on the Patient Information Input Screen and Exposure Menu Selection Screen.
Select Start study..

The Study Execution Screen is displayed. There are two kinds of display mode: one-image display mode and six-image display mode, which can be changed to each other alternately at the press of the button. The mode can be switched alternately. It is possible to specify in the User Utility which mode is displayed at first after the startup. Refer to [Chapter 3 TABLE SETTING / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].
From the next study the mode set lastly will be displayed.

One-image display mode :



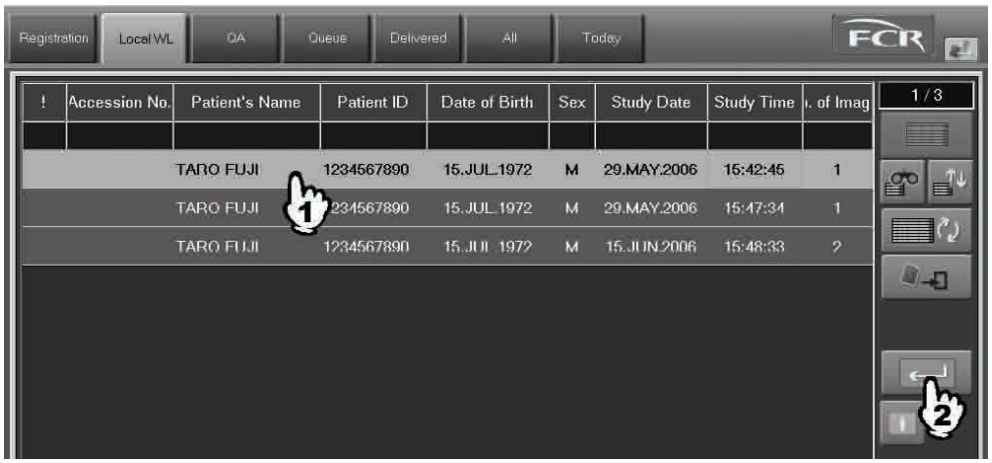
Six-image display mode :



(2) Starting Studies from the “Local WL” List

Executes studies stacked in the “Local WL” list. Select a study, and then select .

In the event that the selected study has already been opened on another CR Console, it cannot be opened. (See [Chapter 5. OPERATIONS - LIST].)



The Study Execution Screen is displayed. For more information about the Study Execution Screen, see [2.2.7 Study Screen].

■ When starting multiple studies at the same time (option)

At the option where multiple studies can be started at the same time, it is possible for you to start multiple studies from the “Local WL” at the same time for the same patient.

To start multiple studies for the same patient at the same time, the following input items of the patient information should be consistent with each other. Note that inconsistency will result even if these information items have been input differently for each study or no such items have been input.

- Patient ID
- Patient name
- Sex
- Date of birth

Note also that either of the following patient information items should have been input indispensably.

- Patient ID
- Patient name

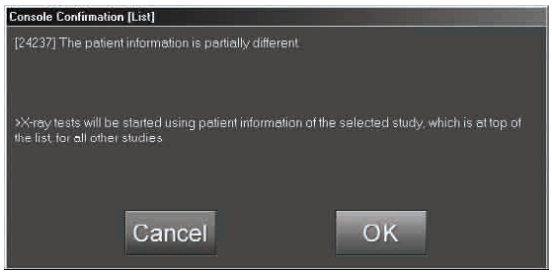
Select studies for the same patient from among the studies stacked to the “Local WL” list, and then select . A maximum of five studies can be selected at a time.

If patient information of the selected studies includes inconsistent data for the information items listed below, a message appears saying that “Selected studies are not related with the same patient”.

- Patient ID
- Patient name
- Sex
- Date of birth

Console Confirmation [List]
[24232] Selected studies are not related with the same patient.
>Make reselection accordingly.
OK

If patient information of the selected studies includes inconsistent data for the information items listed above, a message appears saying that “The patient information is partially different.”


Console Confirmation [List]
[24237] The patient information is partially different.
>X-ray tests will be started using patient information of the selected study, which is at top of the list, for all other studies.
Cancel
OK

OK : Displays studies selected in the “Local WL” list onto the Study Execution Screen.
At this time, patient information of the study shown at the head of the list of selected studies will be reflected on all of the selected patient information. For this reason, there are cases where some of the patient information items are overwritten by the patient information items of the study that is at the head of the list.

Cancel : Cancels processing to start multiple studies at the same time, returning then to the “Local WL” list.

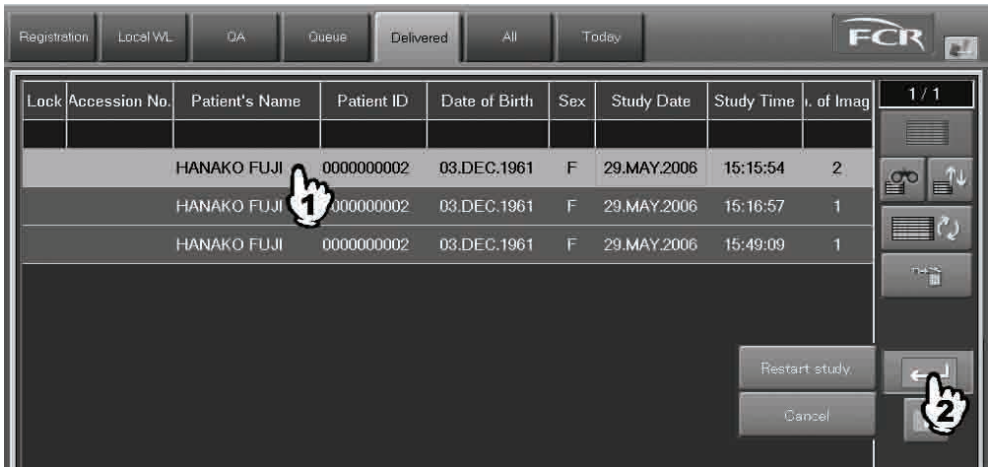
NOTES

- Multiple studies cannot be started at the same time, if those studies include studies where only patient information for which no exposure menus exist have been reserved.
- It is not allowed to start studies registered at the CR Console and those transmitted via RIS (connection by DICOM MWM service) all together at the same time.

(3) Starting Studies from the “Delivered” List (additional exposures)

Performs additional exposures for the study stacked in the “Delivered” list. Select a study, and then wait a few seconds while is selected to display the menu. Select .

It is also possible to resume study by selecting a study first and then by selecting while holding down the Shift key. When doing so, the study to which the exposure or image editing (QA) is currently being performed at a different CR Console cannot be selected. (Refer to [Chapter 5. OPERATIONS - LIST].)

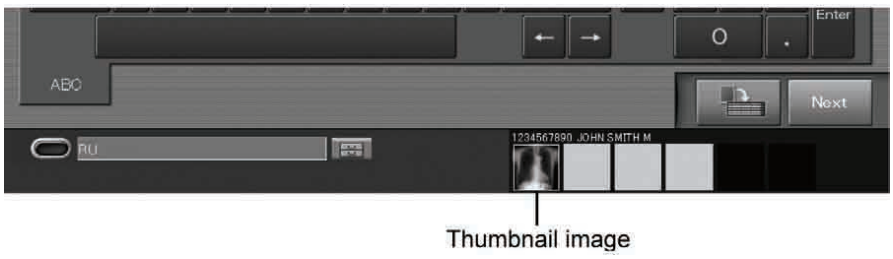


The “Study Screen” is displayed.
For more information about the “Study Screen”, see [2.2.7 Study Screen].

(4) Starting Studies from the Scroll View (option)

When the study is ended before completing an image reading after the IP registration of all exposure menus in study execution is completed, the image reading status is displayed in the scroll view at the bottom of the Patient Information Input Screen/Exposure Menu Selection Screen/Study Execution Screen/individual lists.
Studies displayed in the scroll view can be resumed.
For more information about the scroll view option, see [2.4 Scroll View Display Area (option)].

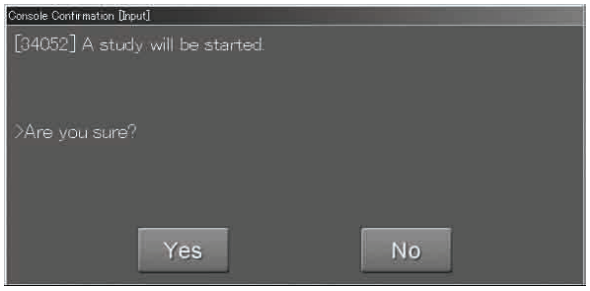
Select a thumbnail image.



■ **When It is not Possible to Fully Display Thumbnail Images in the Scroll View**

Select or to scroll thumbnail images as desired. A maximum of 18 thumbnail images from the beginning can be displayed.
To resume a study, display thumbnail images included in the scroll view on the “Study Execution Screen”.
Different “Confirmation boxes” will be displayed depending on the screen displayed when thumbnail images were selected.

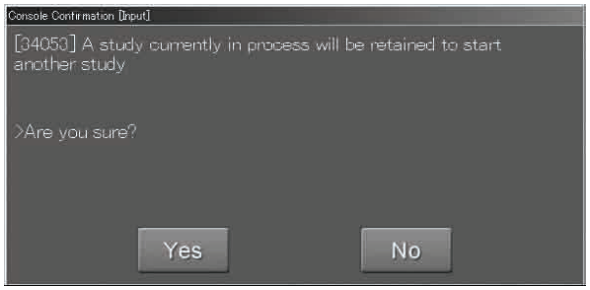
Patient Information Input Screen/Exposure Menu Selection Screen/Study Execution Screen/individual lists :



Select Yes.

A study selected in the scroll view is resumed. (When the resumed study is finished, the display returns to the previous screen.)

Study Execution Screen :


Console Confirmation [Input]
[34053] A study currently in process will be retained to start another study.
>Are you sure?
Yes
No

Select Yes.

The ongoing study is suspended and a study selected in the scroll view is resumed.
(When the resumed study is ended, the screen returns to the suspended study.)

The User Utility allows you to perform settings for whether to end or suspend a study for which the image reading was completed in the background. The User Utility also allows you to determine how to end a study after it has been finished (by selecting) in the “Local WL” list.

For how to perform settings in the User Utility, see the [Chapter 4 PROPERTY SETTING / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

The Study Execution Screen displays. For more information about this screen, see [2.2.7 Study Screen].

(5) Settings to Get the Next Study Started

The next study can be started without returning to the “Patient Information Input Screen”. At the start of the next study, patient information items other than in the “Technologist” field will be cleared off. (However, what is set by the User Utility is displayed for the sex.) To return to the “Patient Information Input Screen” or individual lists, wait for a few seconds while holding down this icon ([Suspend Exposure]) to display the menu and then select one of [Suspend Exposure], [Exposure Completed] and [Exposure/QA Completed].

(For how to perform settings necessary to start the next study, see [Chapter 4 PROPERTY SETTING / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].)

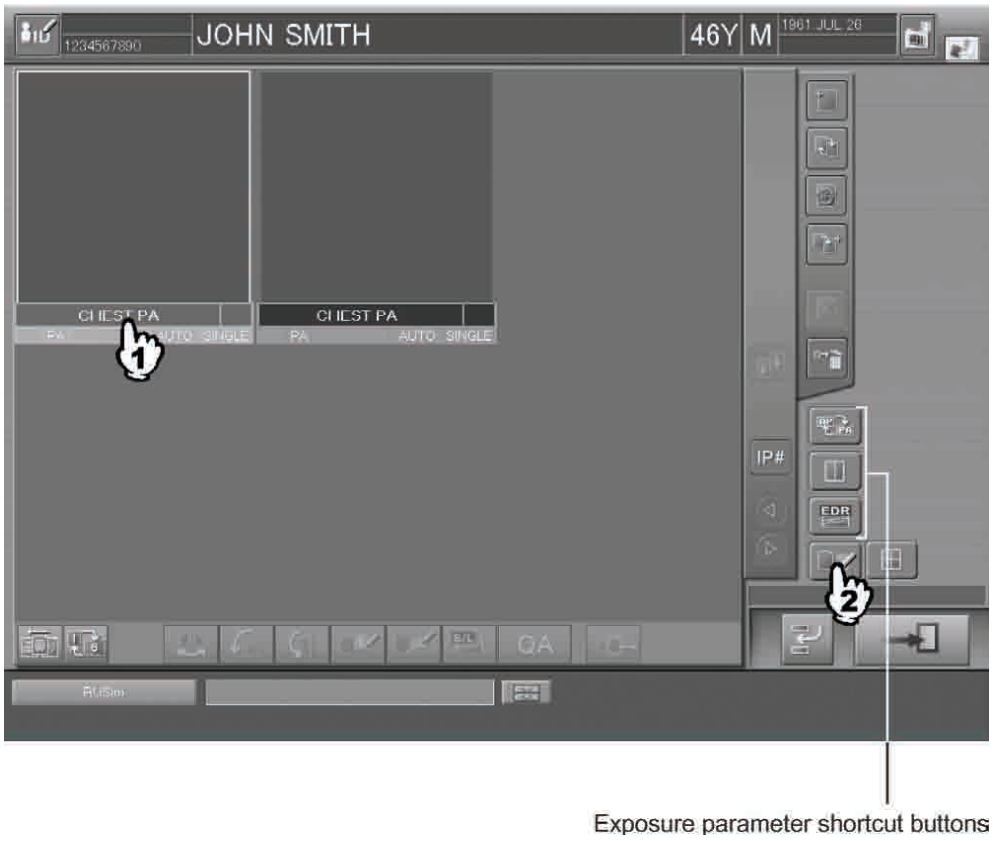
3.3.2 Preparation before Exposure (Image Reading): Confirmation and Modification of Exposure Parameters

Makes various settings for the exposure menus of the study before performing exposures. Perform the operation if necessary.
Confirms or changes exposure parameters. This processing cannot be performed to the exposure menus to which the IP registration and/or the image reading have been performed. For an already-registered IP, setting image flipping ( ) is possible for the exposure menu, if the image has not been read yet.
An appropriate condition for each parameter is already set by an exposure menu, perform these operations accordingly.

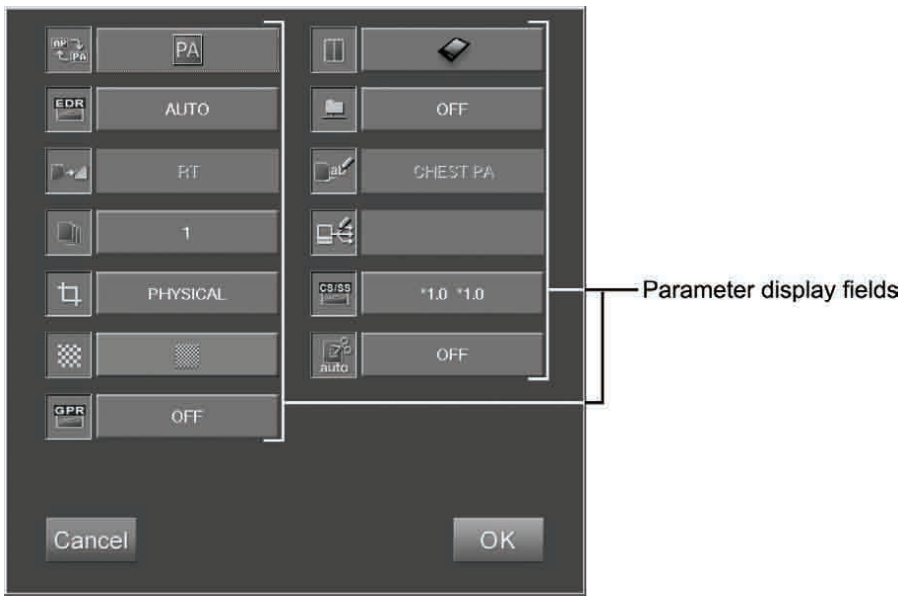
Select an exposure menu that has not been subjected to image reading, and then select the exposure parameter shortcut button for a parameter you want to modify to displaying setup boxes or select to displaying the “Exposure Parameter Selection Box”. Note that the configuration where the exposure parameter shortcut button is displayed differs depending on the settings performed with the User Utility. Refer to [Chapter 10 CUSTOMIZING THE SCREEN DISPLAY / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

One-image display mode:

Six-image display mode :



When is selected, the exposure parameter selection box is displayed.
Perform the setting, which is to be explained hereafter, and then select OK.



"Exposure parameter selection box"

Cancel : Cancels operation.

If you select the parameter display field next to an icon shown in the exposure parameter selection box, the setting box for that parameter opens. Icons shown in the exposure parameter selection box differ depending on the setting performed at installation.

: Sets image flip.

: Sets a film output format.

: Sets EDR (Exposure Data Recognizer) mode.

: Sets image filing mode to a filing device, such as ODF and other.

: Sets special functions.

: Sets film marks (characters to be displayed on film).

: Sets the number of films to be output.

: Sets an image distribution code.

(a code number that specifies a destination for image distribution).

: Sets the IP reading size.

: Sets image CS (Contrast Shift) and SS (Sensitivity Shift).

: Sets image density.

: Sets image trimming processing.

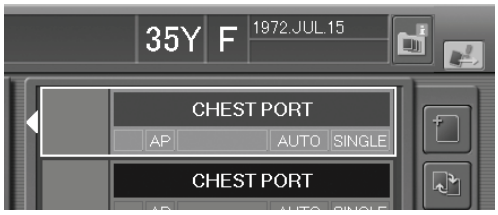
: Sets GPR (Grid Pattern Removal Processing) when the “GPR option” has been activated.

When one of the exposure parameter shortcut buttons is selected, the setting box that is for the selected parameter will be displayed. Perform appropriate operations referring to the following explanation.

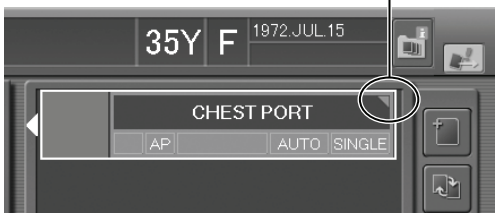
■ **Receipt of the X-ray exposure parameters (option)**

When the CR Console receives such parameters from the X-ray control unit, a marking will be indicated at the upper right corner of the exposure menu, as shown below.

Marking indicating reception of the X-ray exposure parameters



Before receiving X-ray exposure parameters



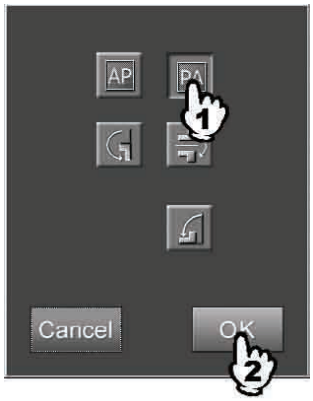
After X-ray exposure parameters have been received

(1) Setting image flip

Sets image flip display. This processing can be performed to the exposure menus to which the IP registration has been done but image reading not yet performed.

Select the parameter display field of to display the setting box.

Select one of these icons and select OK.



"Image flipping setting box"

Cancel : Cancels operation.

: Normal image.
: Flips the image horizontally.
: Rotates the image 180 degrees.
: Flips the image vertically.
: Rotates the image 90 degrees to left.

In case the setting of the image flip display is changed, the setting change will be cleared and the initial setting restored, if the exposure menus are changed or the images are switched after image reading.

(2) Film output format

Sets the format of the film to be output.

Select the parameter display field of to display the setting box.

Select one of the icons.

"Film output format setting box"

Cancel : Cancels operation.

: One-image format.

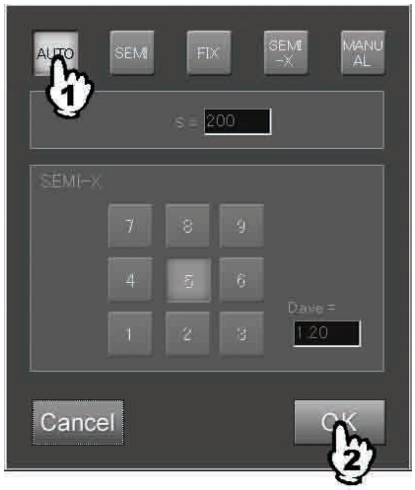
: Two-image format.

(3) EDR mode

Sets the EDR (Exposure Data Recognizer) mode.

Select the parameter display field of to display the setting box.

Select one of the icons to make necessary settings, and then select OK.



"EDR setting box"

Cancel : Cancels operation.

AUTO : AUTO mode.

SEMI : SEMI AUTO mode.

FIX : FIX mode. When this mode is selected, input S value (4 to 20047) in the item “FIX”.

SEMI -X : SEMI-X mode. When this mode is selected, select photometric position in the item “SEMI-X”, and input a Dave value (0.30 to 2.64) of average density for a photometric region.

MANUAL : Manual EDR mode. When performing the manual EDR processing at the Image Reader, make it effective by selecting it in combination with other mode. Each time selecting it, valid/invalid is switched alternately.
If this mode is effective, the combined mode (AUTO/SEMI AUTO/FIX) with it indicates the EDR mode performed for the image the first time it is displayed at the Image Reader. (When combining this mode with the SEMI-X mode, the same processing as the SEMI AUTO mode will be performed.) For example, when it is combined with the AUTO mode, the manual EDR processing can be performed for the images to which the AUTO mode processing has been performed first.

(4) Filing mode

Sets image filing mode to a filing unit (ODF, etc.).
Select the parameter display field of to display the setting box.
Select one of the icons.

“Filing mode setting box”

Cancel : Cancels operation.

OFF : Does not record the image in the filing unit.

ON : Records the image in the filing unit.

ON* : Converts the image from high resolution (with the pixel density as is) to standard resolution (smaller pixel density) and records the converted image in the filing unit.

(5) Function

Sets the function (a special processing).

Select the parameter display filed of to display the setting box.

Select one of the icons.

"Function setting box"

: Cancels operation.

: Routine processing (normal exposure).

: Temporal subtraction processing.

: Energy subtraction processing.

: Whole spine processing.

Usually it is set to the exposure menus for the Image-composition Processing (optional). If it is set when the user's unit does not have the image-composing function, the image processing defined to this function is only applied to the exposure menus.

(6) Film mark

Sets a film mark (characters displayed on the film).

Select the parameter display field of to display the setting box.

Select a film mark.

Any character can be input in the input field below the box. Enter characters, and then press the Enter key.

Cancel : Cancels operation.

Clear : Clears the setting and closes the box.

◁ / ▷ : Turns page.

(7) Number of film output

Sets the number of films to be output.

Select the parameter display field of to display the setting box.

Select or to set the number of output, and then select OK.

"Film output count setting box"

Cancel : Cancels operation.

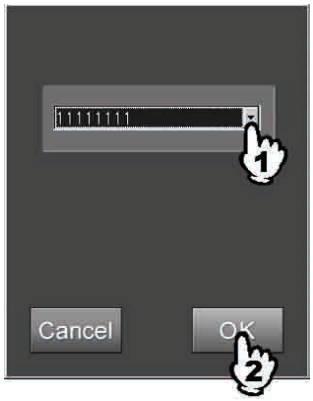
With the User Utility, you can set up the number of films to be displayed as the initial value. If filing mode is set to "OFF", do not set this parameter to "0".

(8) Distribution code

Sets the distribution code (a code number which specifies the destination of transfer) of the image.

Select the parameter display field of to display the setting box.

Select a distribution code, and then press OK.



"Distribution code setting box"

Cancel : Cancels operation.

(9) Reading size

Sets the reading size of IP.

Select the parameter display filed of to display the setting box.

Select one of the icons.

<Cassette type>

<FCR 5000 series>

<FCR VELOCITY series Built-in type>

"Reading size setting box"

* The reading size setting box that opens differs depending on the Image Reader size.

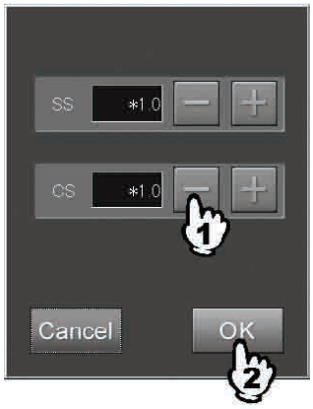
Cancel : Cancels operation.

PHYSICAL : Reads in the same size as the IP.

Others : Reads in the displayed size shown on the icon.
For the bed-type Image Reader, only the center reference (C) icon can be selected as the reference position for IP reading.

(10) SS/CS

Sets SS (Sensitivity Shift) and CS (Contrast Shift) to the image.
Select the parameter displays field of to display the setting box.
Select or to select a value, and then select .



"SS/CS setting box"

: Cancels operation.

SS : A coefficient given to parameters related to reading sensitivity. Changes the density of the image. Can be set in the range of /(÷)2.0 to *(×)2.0.

CS : A coefficient given to parameters related to tonal curve. Changes the contrast of the image. Can be set in the range of *(×)0.5 to *2.0.

(11) Pixel density

Sets pixel density for the image.
Select the parameter display field of to display the setting box.
Select one of the icons.

"Pixel density setting box"

: Cancels operation.

: Standard density.

: High density.

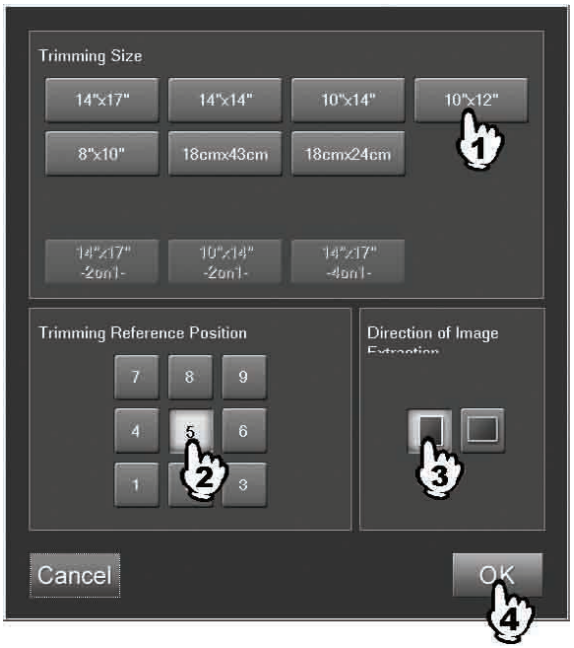
The 14" x 14" or 14" x 17" sized images to which the standard density is set will be reduce-sized images (67%) when they are output to film with one-image format at destination units.

(12) Trimming

Sets trimming processing. When the user authentication has been specified according to the setting performed at installation, the user is allowed to limit the use of this function. For more information, refer to [Chapter 3 TABLE SETTING / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

Select the parameter display field of to display the setting box. (The parameter display box of can be selected only when the trimming option has been activated.)

Select an extraction size, reference position for extraction, and direction for image extraction, and then select OK.



"Trimming setting box"

: Trims a read image to the 14"x17" size.

: Trims a read image to the 14"x14" size.

: Trims a read image to the 10"x14" size.

: Trims a read image to the 10"x12" size.

: Trims a read image to the 8"x10" size.

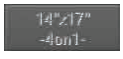
: Trims a read image to the 18x43cm size.

: Trims a read image to the 18x24cm size.

: Trims a read image to the 17"x17" size.

: Trims a read image to the 8"x14" size, the half of 14"x17", if the 2on1 film format is selected for the read image.

: Trims a read image to the 7"x10" size, the half of 10"x14", if the 2on1 film format is selected for the read image.



: Trims a read image to the 7"x8" size, the one fourth of 14"x17", if the 4on1 film format is selected for the read image.

The setting of image trimming for an already read image can be inactivated on the QA screen.
Even if the size of a read image does not fit to the image size before image extraction specified for the “Extraction size” item, it is possible for you to change the trimming frame position to locate the ROI at the center. (See [Chapter 4 OPERATIONS - IMAGE EDIT].)
However, the range of image trimming cannot be set for a size that exceeds the size of the read image.

■ Image display size and trimming size

When setting for trimming processing has been performed, a read image and its thumbnail image will be the image before extraction combined with a trimming frame. If the image undergoes magnification/reduction processing, its trimming frame will also be magnified/reduced accordingly. The size displayed in the exposure menu field will be the size for the area specified with the trimming frame. Moreover, if an image edited on the QA screen is saved, it will be saved in the size by which the area specified by the trimming frame was extracted. However, the range of image trimming cannot be set for a size that exceeds the size of the read image.

NOTES

- Trimming processing is not available in the cases a) to c) below, even if the size of a read image is the same as that of the image before it has been subjected to trimming processing as specified in “Trimming Size:” above.
  a) Images read from the FCR 5000 series at standard density
  b) Composed images or source images for composition
  c) Energy subtraction images
  d) Some of the images read in FR mode
- With regard to an image that has been subjected to trimming processing to 10"x14" or 14"x10" size, do not change image magnification ratio or image rotation direction on the image display unit side. Because the trimming frame position information varies as the image magnification ratio or image rotation direction changes, 10"x14" or 14"x10" sized images cannot be output correctly even if they are reprinted via the CR Console.
- Modifying an exposure menu or replacing an image after image reading processing will retain the trimming setting determined before such a change, resulting thus in disabling re-trimming processing at initial menu setting after such a change.
- Note that the determined trimming setting will not be reflected on images extracted to 10”x12”, 8”x10”, 14”x17” 2on1, 10”x14” 2on1 or 14”x17” 4on1, if they are transferred to a filing device or a soft copy device at standard density.

3.3.3 Preparation before Exposure (Image Reading): Adding Exposure Menus

Adds exposure menus as follows.
Perform operation appropriately depending on the selected display mode of the Study Execution Screen.
Select .

Sample of one-image display mode :

Sample of six-image display mode :

The exposure menu addition box is displayed.
Select a menu item in the menu group to display the desired exposure menu, and then select an exposure menu (more than one menu can be selected). The selected exposure menu(s) is listed in the selected exposure menu list on the right side of the screen. (Only the added menu(s) is displayed in the selected exposure menu list on the right side of the screen.)
After selecting an exposure menu(s), select OK.
For how to select a menu in the exposure menu selection box, see [3.1.3 Selecting Exposure Menu].

To cancel addition of exposure menus to return to the Study Execution Screen, select Cancel.

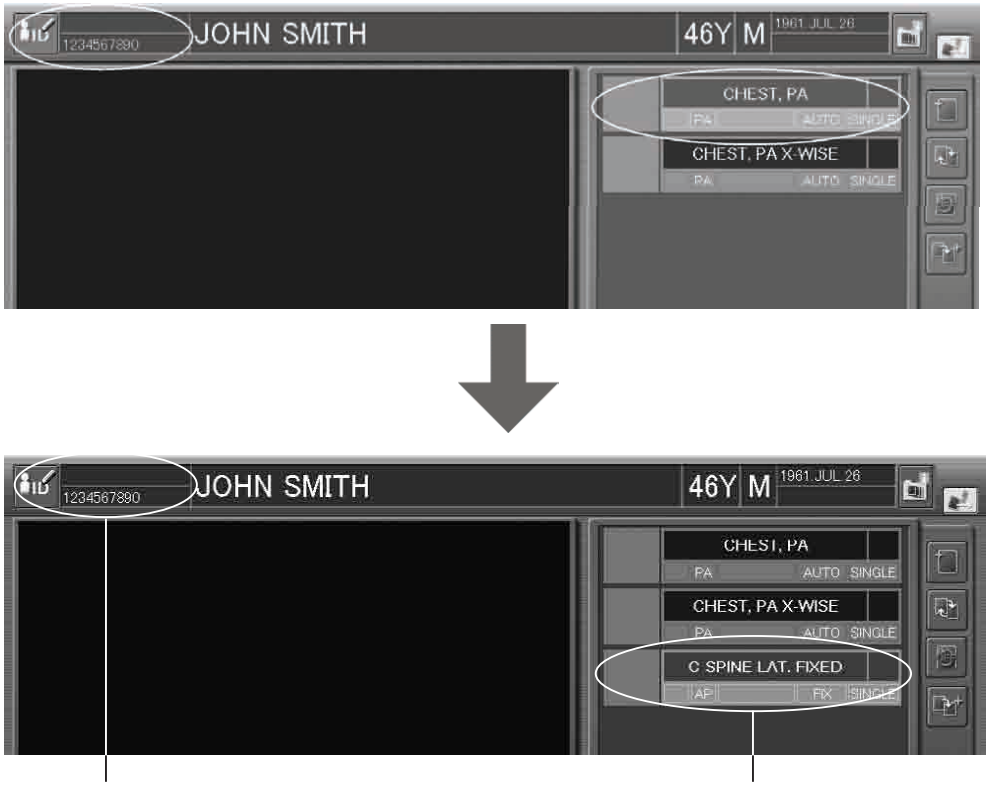
■ **When adding study exposure menus at startup of multiple studies at the same time:**

Study menus can be added also at startup of multiple studies at the same time.

To add a study menu at startup of multiple studies at the same time, select on the study screen an exposure menu to be added to one study, and then select .

The exposure menu selected in the exposure menu addition box will be added to the study selected on the study screen.

Addition of exposure menus due to mis-exposure images or Auto Repeat processing can be performed in the same manner.



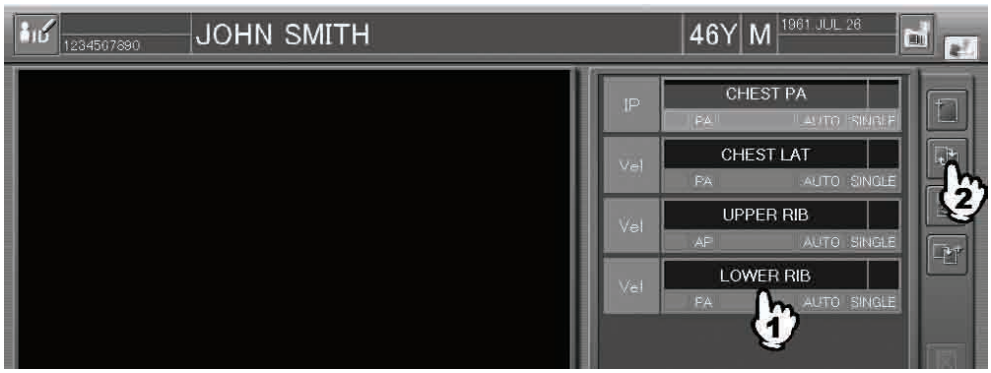
The accession number and the patient ID are the same with each other.

A new menu is added to the selected SKULL, FRN menu.

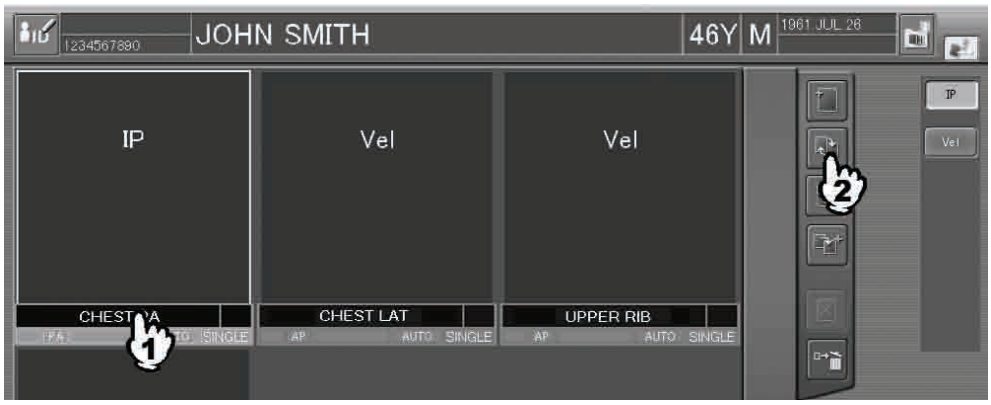
3.3.4 Preparation before Exposure (Image Reading): Changing Exposure Menus

Changes exposure menus as follows.
Both exposure menus before image reading and after image reading can be changed. Perform appropriate operation depending on the selected display mode of the Study Execution Screen.
Select an exposure menu to be changed, and then select .

Sample of one-image display mode:

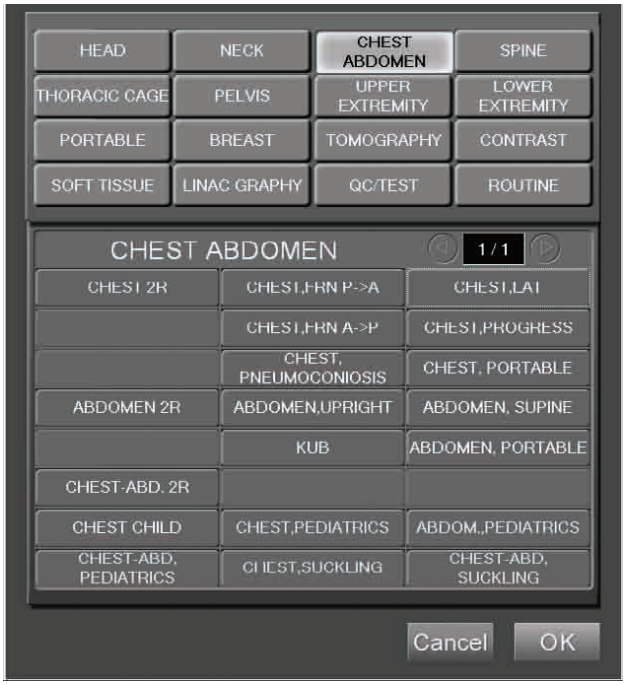


Sample of six-image display mode :



The exposure menu change box is displayed.
Select a menu item in the menu group to display the desired exposure menu, and then select an exposure menu.
After selecting an exposure menu(s), select OK.

For how to select a menu in the exposure menu change box, see [3.1.3 Selecting Exposure Menu].



To cancel addition of exposure menus to return to the Study Execution Screen, select Cancel.

3.3.5 Preparation before Exposure (Image Reading): Deleting Exposure Menus

Deletes exposure menus. Perform appropriate operation depending on the selected display mode of the Study Execution Screen.
Note that only the exposure menus before image reading can be deleted. The exposure menus after image reading cannot be deleted.
After selecting an exposure menu, select .

Sample of one-image display mode :

Sample of six-image display mode :

3.3.6 Preparation before Exposure (Image Reading): Setting the Auto-repeat Exposure

Repeats exposures with the same selected exposure menus automatically. This setting can be performed to the exposure menus to which the IP registration has been done but image reading not yet performed. If the exposure menus of which exposure parameters have been changed are selected, the change will reflect the exposure menus for auto-repeat exposure. However, the setting of image trimming will be canceled.

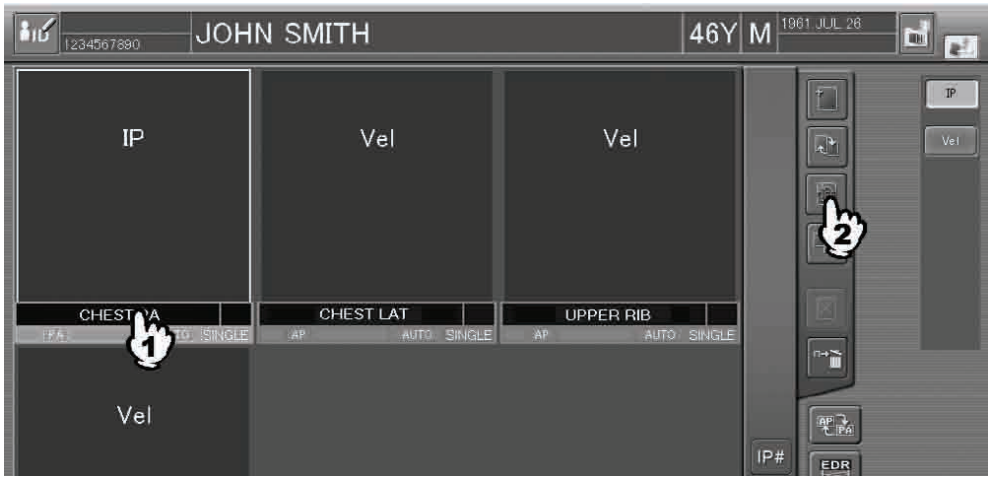
Perform appropriate operation depending on the selected display mode of the Study Execution Screen.

Select the exposure menus for the auto-repeat exposure, and then select . The auto-repeat exposure is set (is displayed).

When the exposure menu to which the auto-repeat exposure is set as a default condition is selected, is displayed automatically. As the default condition can be set with the User Utility, refer to [Chapter 2 MENU SETTING / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

Sample of one-image display mode :

Sample of six-image display mode :



Whenever performing the IP registration/image reading for the exposure menus to which the auto-repeat exposure is set, the same exposure menus will be displayed (selected).

Repeat image reading processing as needed, and select to terminate it. The auto-repeat exposure is released (is displayed).

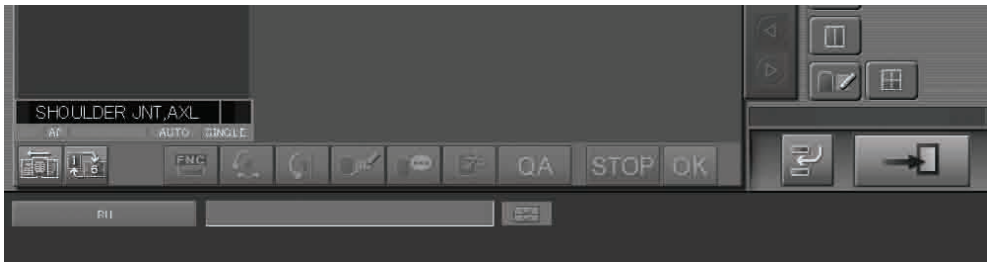
3.3.7 Preparation before Exposure (Image Reading): Setting the Multi-frame Format

Makes changes for multi-frame format and performs re-composition of image position.

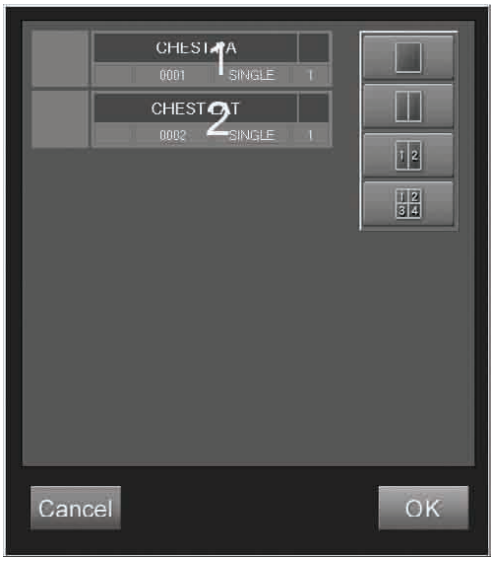
Select Multi-frame setting button.
As display/non-display of this button can be set with the User Utility, refer to [Chapter 10 CUSTOMIZING THE SCREEN DISPLAY / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

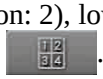
Sample of one-image display mode :

Sample of six-image display mode :



A film format change box is displayed.
After completing the following operation according to the desired format, select .

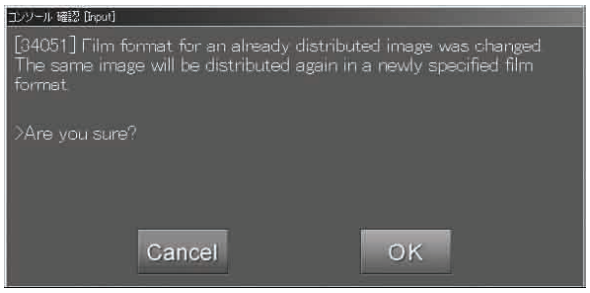


For one image format, select an image (more than one image can be selected), and then select .
For the two image format (one right/left image), select an image (more than one image can be selected), and then select .
For the 2on1 format (two different images), select left image (frame position: 1) and then right image (frame position: 2), and select .
For the 4on1 format, sequentially select, upper left image (frame position: 1), upper right image (frame position: 2), lower left image (frame position: 3) and then lower right image (frame position: 4), and select  .

Cancel : Cancels operation.

The 2on1 format and the 4on1 format can be applied only to a menu for which the function is set to "RT" (routine processing). For how to set the function, see [3.3.2 (5) Function].
It is also possible to select images set in other film and recompose them accordingly. All other images selected from other films will be changed to the one-image format.
When format change is executed to the delivered images, a confirmation box is displayed if "OK" is selected.

Select OK. Film output is yielded.


コンソール 確認 [Input]
[34051] Film format for an already distributed image was changed. The same image will be distributed again in a newly specified film format.
>Are you sure?
Cancel
OK
"Confirmation box"

Cancel : Cancels operation.

When format change is executed to undelivered images, no film images will be output and delivered after image reading processing according to the auto-delivery setting.

3.4 Reading Images

Reads and displays images already exposed.
The auto repeat exposure and re-exposure/additional exposure can be performed if necessary. For more information about auto-repeat exposure, see [3.3.6 Preparation before Exposure (Image Reading): Setting the Auto-repeat Exposure]. In addition, for more information about re-exposure and additional exposure, see [3.5 Performing Re-exposure and Additional Exposure].
Perform operations appropriately depending on the display mode selected on the Study Execution Screen.
When multiple Image Readers are connected, the selectors will be displayed.
Select one of the Image Readers to be used. (The Image Reader may be selected automatically depending on the selected exposure menu.)

Sample of one-image display mode :

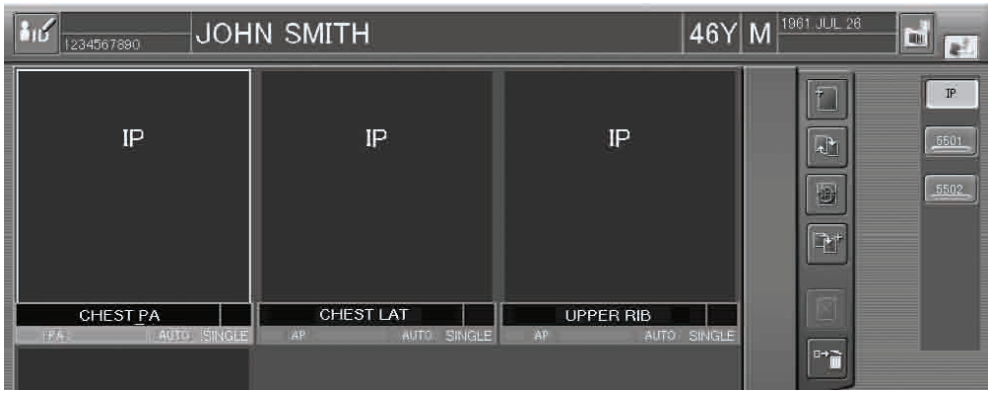
The selector name of the Image Reader to be used is displayed in the display field of unread thumbnail images.

Sample of six-image display mode :

Sample of six-image display mode:

Order of exposure menu display is applied from top left → top center → top right → bottom left → bottom center and then to bottom right.

Before images are actually read, the image display area displays the selector name of an Image Reader to be used and the registered IP number.



When the auto-delivery function is set for read images, the auto-delivery of the images can be suspended temporarily as needed.

Even if the “auto-delivery when after a certain period of time has passed after reading” is set, the auto-delivery after a certain period of time for read images can be stopped as needed.

For more information about image delivery processing, see [3.7 Image Delivery].

3.4.1 Differences in the Operation of Connected Image Readers

Note that the operation required on the “Study Execution Screen” differs depending on the used Image Reader. Differences in the operation are explained as follows taking the following readers as examples.

- FCR Cassette type equipment
- FCR 5000 series Built-in type equipment
- FCR VELOCITY series Built-in type

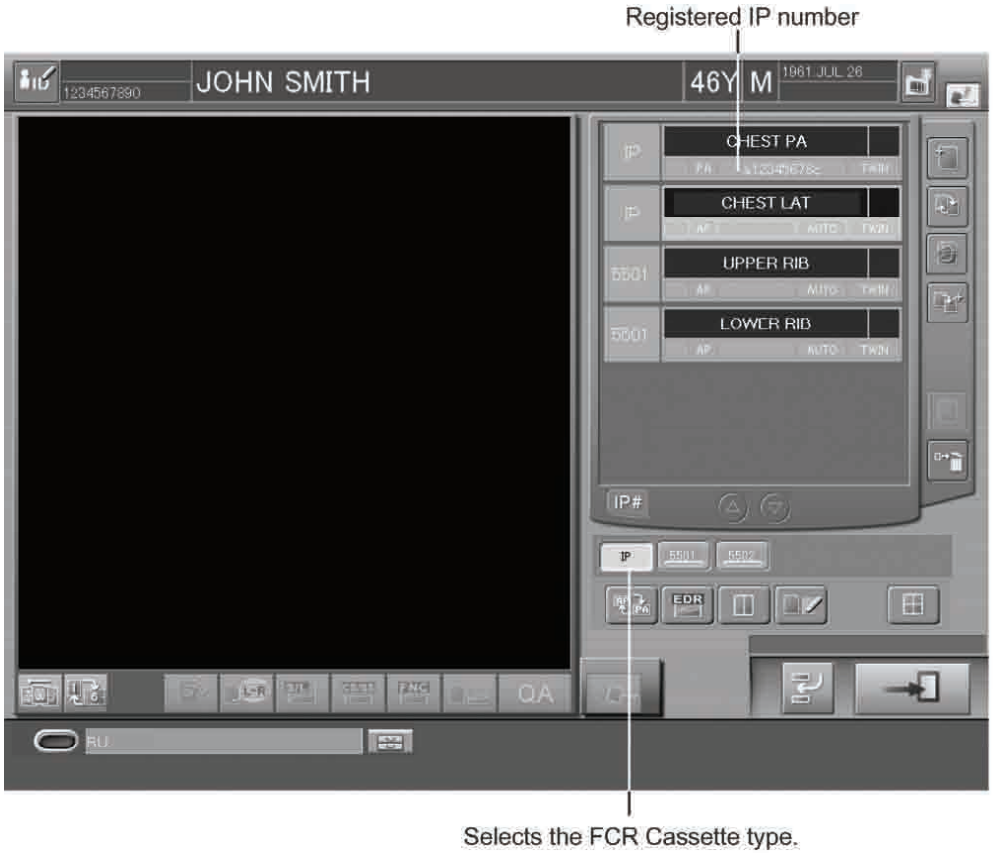
NOTE

- Do not operate the CR Console (CR-IR 348CL) while images are being read (including the operation to perform exposure for a cassette built-in type Image Reader).
  Otherwise, images may not be read correctly or read images may be processed based on improper menu information. Moreover, do not finish a study or start image QA processing before confirming that all images concerning the study are read completely.

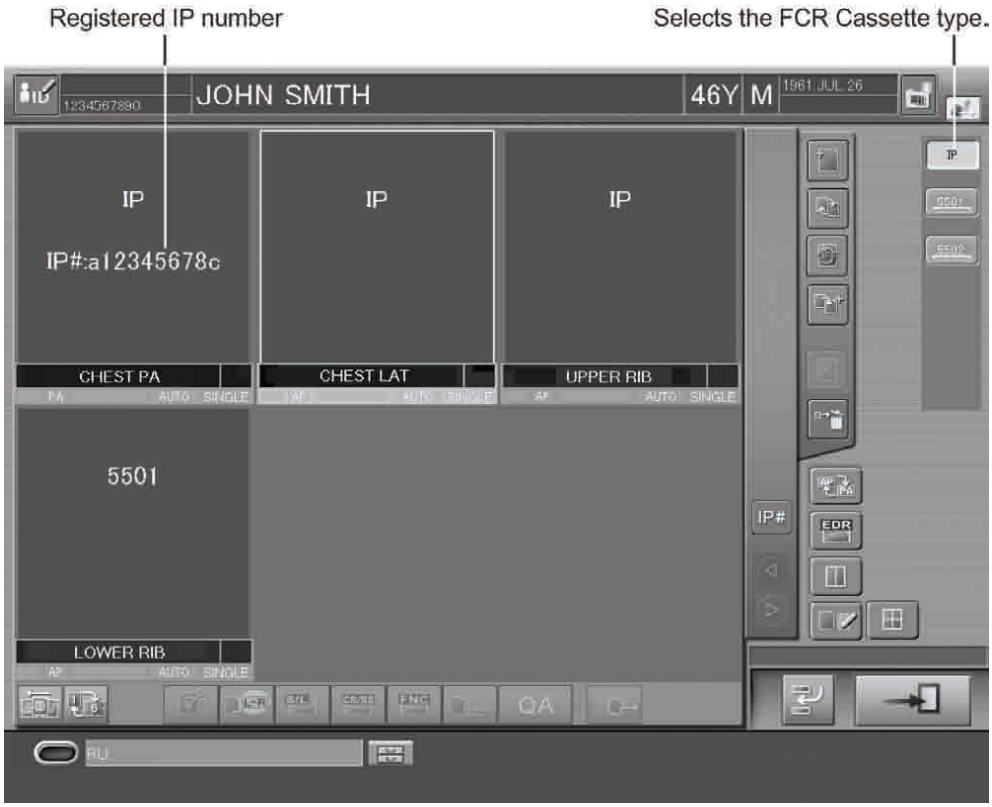
(1) FCR Cassette Type Equipment

Register an IP by reading a barcode of exposed IP with the barcode reader. When the IP registration is completed, the unit displays the registered IP number at the exposure menu field. Carefully check it for preventing mis-registration.
When a user repeats the selection of exposure menus and barcode reading above mentioned, multiple IPs can be registered at once. Therefore, if studies are suspended after the IP registration, the image reading for multiple studies can be performed at once.

Sample of one-image display example :



Sample of six-image display example :



■ **If not possible to register an IP number with the barcode reader**

If an IP number cannot be read with the barcode reader for any reason, the IP can be registered by keyboard input.

Select IP# at the lower left of the exposure menu list. The IP number input box will be displayed. Input an IP number (eight digits not including the first and last characters) recorded in the barcode label and press the Enter key.

"IP number input box"

Cancel : Cancels operation.

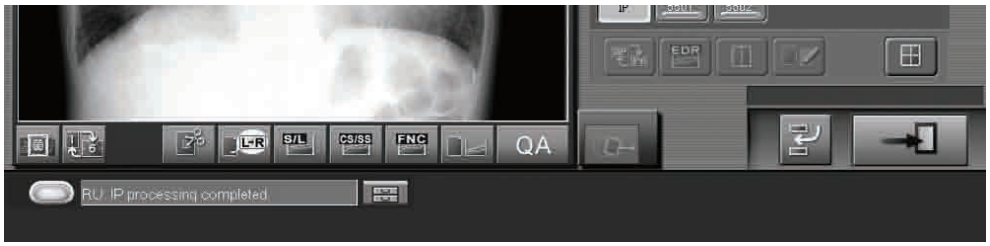
After the completion of the IP registration, load these IPs into the Image Reader. The image reading will be started. Any of Image Readers (FCR Cassette type) connected to this CR Console can read images accordingly.

NOTES

- The same IP cannot be registered continuously to prevent the mis-registration of IPs. If the IP just registered needs to be registered again to the next exposure menu, delete the exposure menu just registered, or register a different IP once and re-register the desired exposure menu by overwriting it. (The same IP can be registered continuously according to the setting performed at installation. If necessary, contact our service engineer.)
- When the FCR Cassette type or the FCR 5000 Series Readers read the IPs registered at the ID-T741, the CR Console specified as a master or a reference for ID information to the Image Reader receives the images. In this case, the CR Console that received the images automatically creates new studies according to study information obtained from the ID-T741 and can handle the studies in the same manner as other studies. However, new studies are created in one image for one study, therefore if the film output format is set in 2on1 or 4on1 for an image at the ID-T741, this setting will be invalid, and the image will be output on film in the one-image or two-image (either one of left image/right image) format.

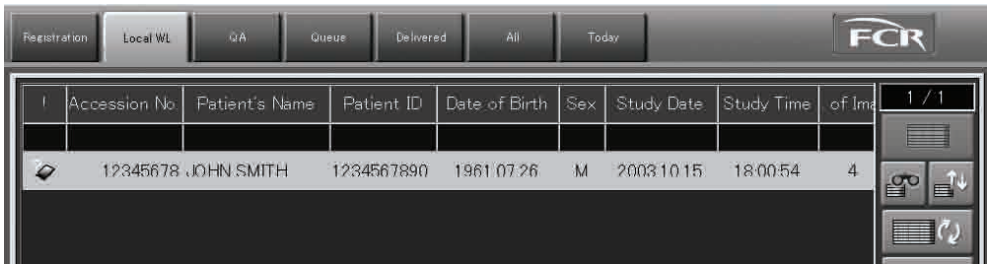
The image reading is a background operation. Thus, when it takes a long time to complete image reading because of continuous multiple-IP insertion, users can go to next study operation before the completion of image reading. In this case, select , and perform next study operations.

Sample of one-image display mode:



Sample of six-image display mode:

The study whose image reading is to be performed in the background is stacked in the “Local WL”, and mark will be displayed for the study at the “ ! ” column of the list when one or more images are read for it.



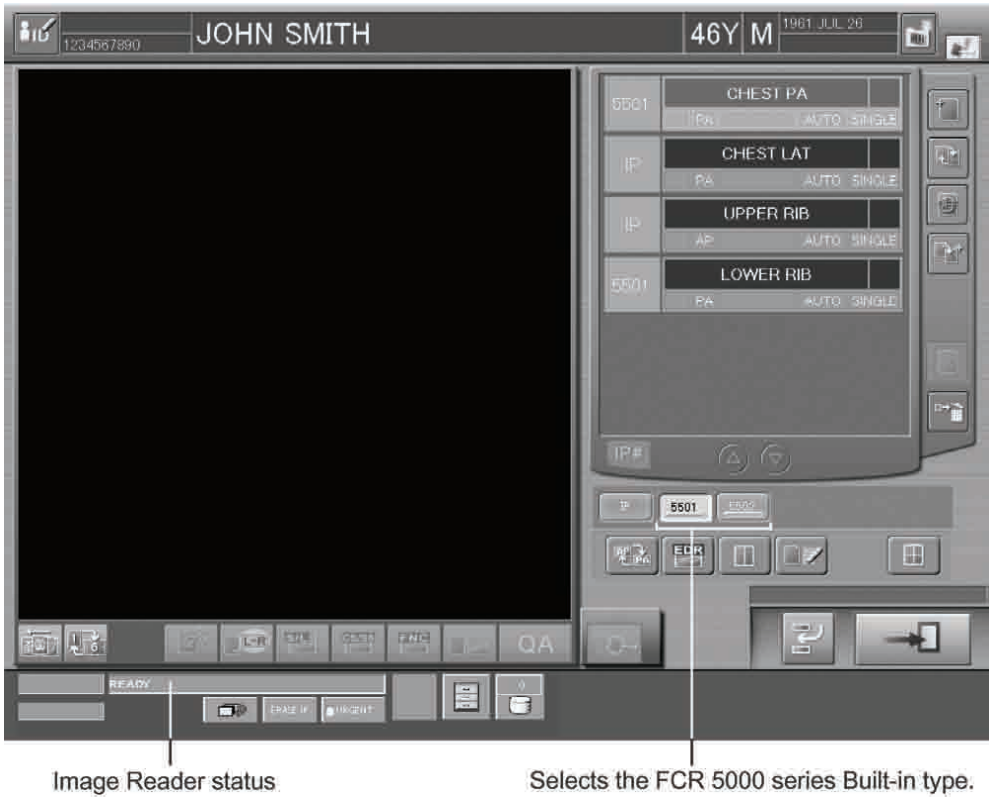
When all the exposure menus are registered on the IP, image reading status can be confirmed in the scroll view on the Patient Information Input Screen/Exposure Menu Selecting Screen/Study Execution Screen/individual lists.
For more information about the scroll view, see [2.4 Scroll View Display Area (option)].

By using the User Utility, it is possible to set the processing (automatic study completion/action after study completion) to the study for which image reading has been completed.
Refer to [Chapter 4 PROPERTY SETTING / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS] for details.
When the suspension processing can be applied to the study for which image reading is completed, it will remain in the “Local WL”. So that users can re-display it at the Study Execution Screen and continue operations to complete exposures.

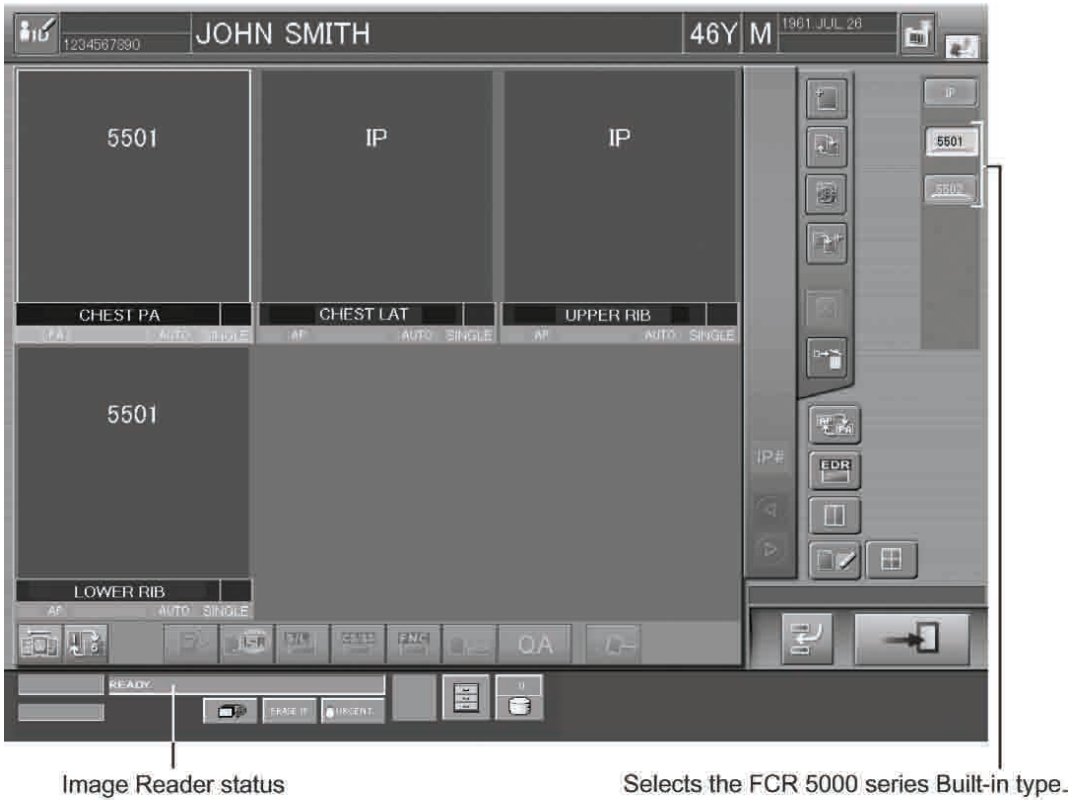
(2) FCR 5000 series Built-in type

Confirm that “READY” is displayed for the Image Reader status and then perform exposures on it. Image reading processing will then start.

Sample of one-image display mode:



Sample of six-image display mode:



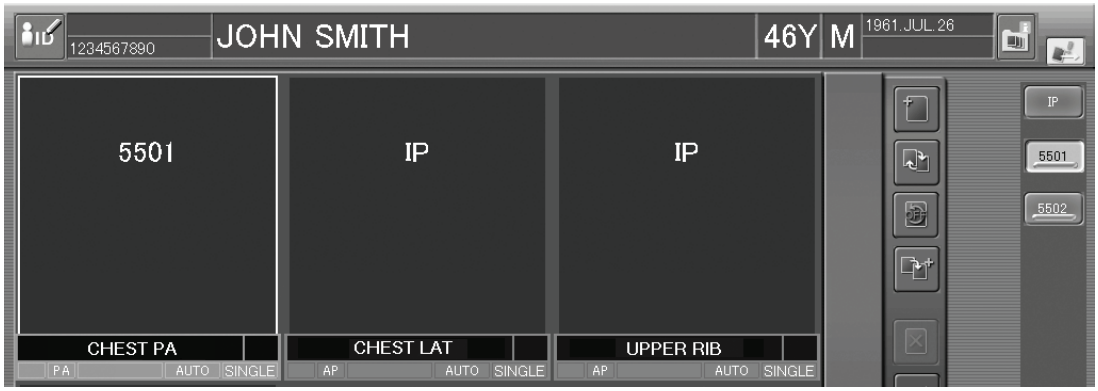
When reading images from the FCR 5000 series, the size shown in the exposure menu box will be changed from 17"x14" to 14"x17" or 10"x8" to 8"x10" after the completion of image reading processing, if IP reading size has been determined to be 17"x14" or 10"x8". Note that this is a symptom that can occur with respect to representation for reason of internal processing and image reading processing has completed normally.

NOTE

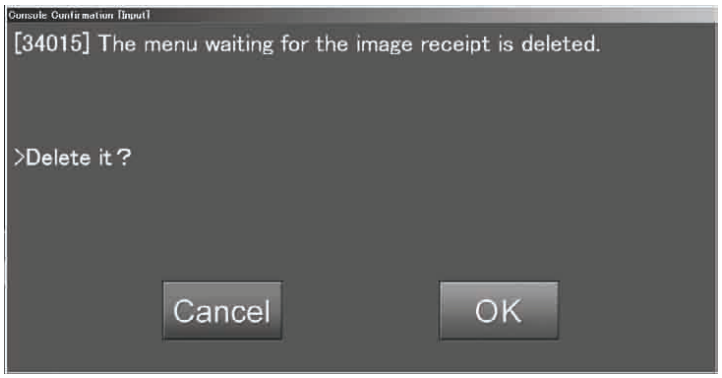
To delete an exposure menu, be sure to confirm the exposure menu status.
When reading images derived from the FCR 5000 series equipment, part (thumbnails) of the exposure menu turns black before actually reading images.

Sample of one-image display mode:

Sample of six-image display mode:



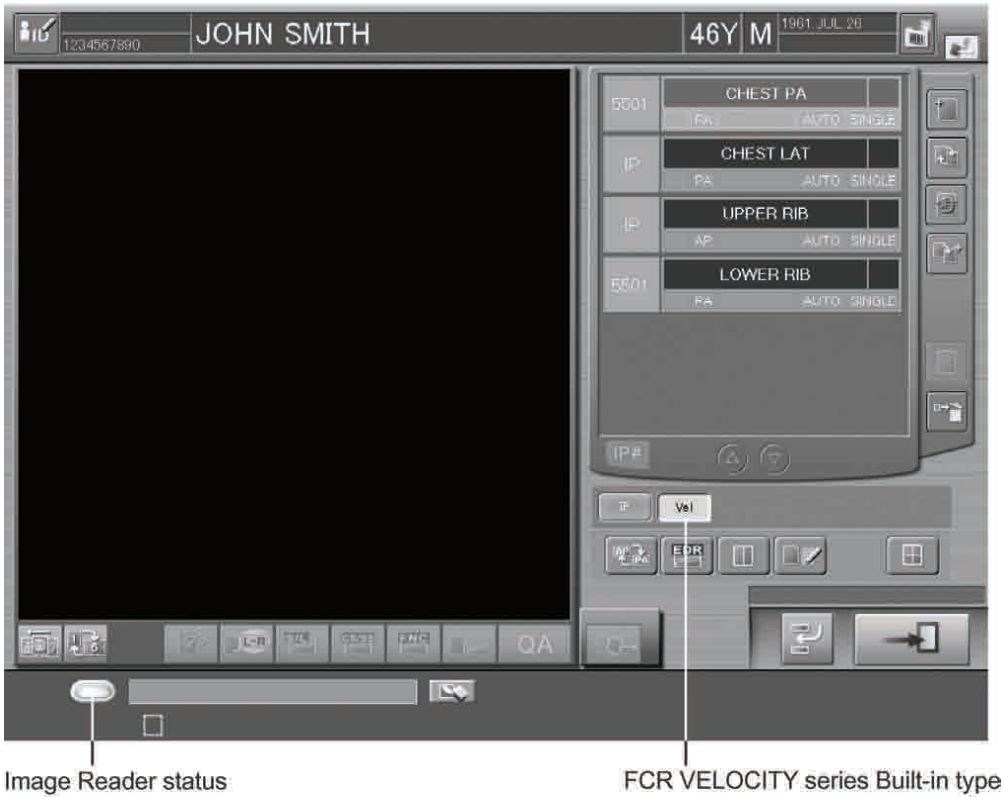
Deleting the exposure menu at this time will display a message like that shown below.
If you do not want to delete it, select Cancel.
Be careful images will be lost if you select OK here.



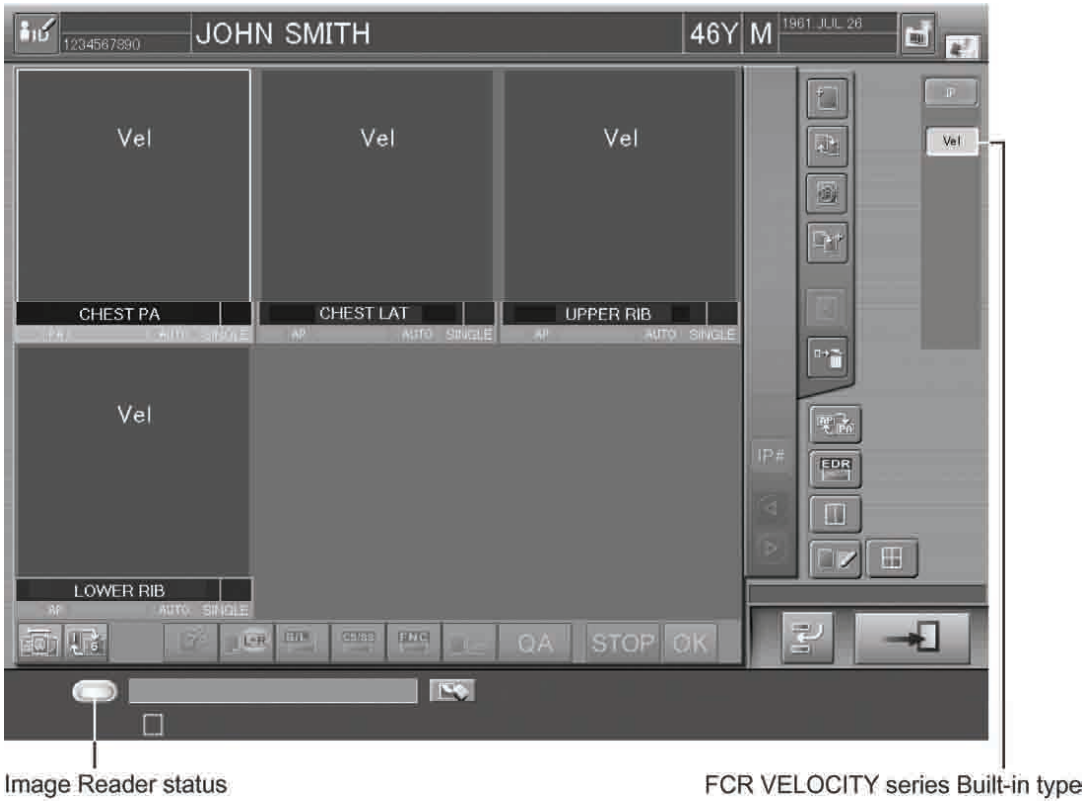
(3) FCR VELOCITY series Built-in type

Confirm that taking shots is enabled for the Image Reader status and then perform exposures on it. Image reading processing will then start.

Sample of one-image display mode:



Sample of six-image display mode:

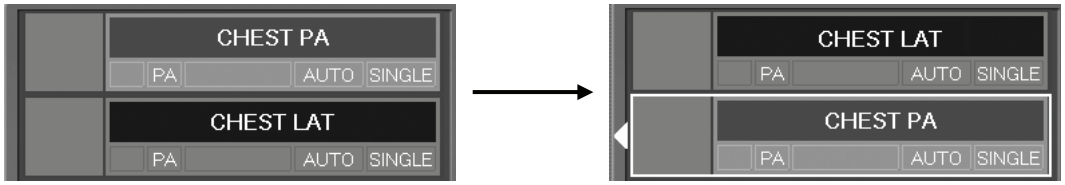


The image read is displayed on the screen of the CR Console. Repeat the selection of exposure menus and image reading as many times as needed. After completion of image reading processing, the following image-delivery marks are displayed to the images for which the delivery processing has already been started:

- ⬡ for the image of auto-delivery at each time of image reading
- OK for the image of auto-delivery when a certain period of time has passed after image reading

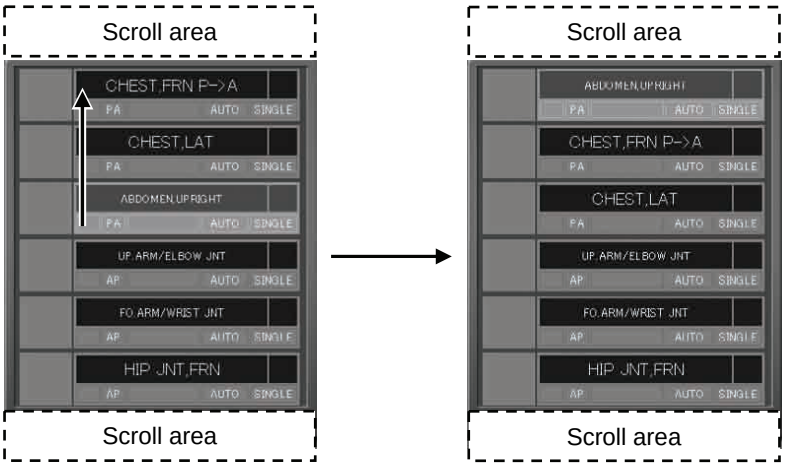
3.4.2 Changing the Order of Exposure Menus

For one-image display mode, moving selected exposure menus up and down will allow you to change order of those exposure menus.



When the six-image display mode is used, order of exposure menus cannot be changed. If you want to change the order, select to switch the mode to one-image display mode.

If there are more than seven exposure menus, moving an exposure menu with it selected to the upper or lower scroll area can move the menu accordingly.



3.4.3 Switching Images

For an auto-delivery setting that is to be performed after the completion of QA processing, switching images alternately is possible.
Select an image and wait for a while. The image frame will be displayed in boldface. And select other image. These two images will be switched alternately.

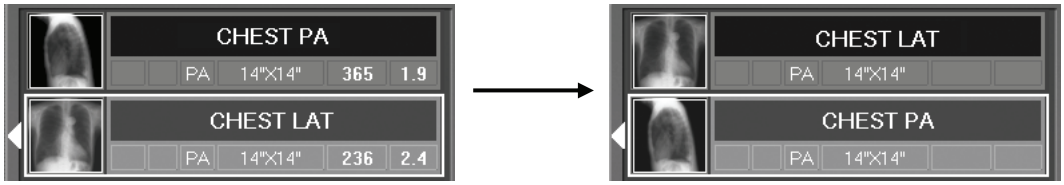


Image frame that appears after waiting for a few seconds, with the image selected accordingly (sample of one-image display mode)

This function is not valid for energy subtraction images, images with the image-delivery marks, and the composite images.
Images can be switched over as desired even when multiple studies are being implemented at the same time. Note, however, that it is not possible to switch over study images derived from different modalities with each other.

3.4.4 Scrolling the Exposure Menu List

Select or to scroll the exposure menu list.

3.4.5 Changing Display Image

Select a thumbnail image to change a display image.

3.4.6 Changing the Monitor Mode

This is a mode to automatically display read images. This mode is set (display) in the default. When a thumbnail image is selected to change the display image, the monitor mode is released (display) to give priority to display of that image. To set a monitor mode after the monitor mode is released, select .

3.4.7 Alternately Changing Image Display Mode

Selecting will allow you to change one-image display mode and six-image display mode alternately.
When the read images are specified for “Distributes images to all attributes individually” or “Distributes images to the Print attribute only individually”, images thus selected can be delivered accordingly.
An image for which auto-delivery is specified when a certain period of time has passed after image reading can be delivered before such a period has actually passed, as necessary. For more information about image delivery, see [3.7 Image Delivery].

3.5 Performing Re-exposure and Additional Exposure

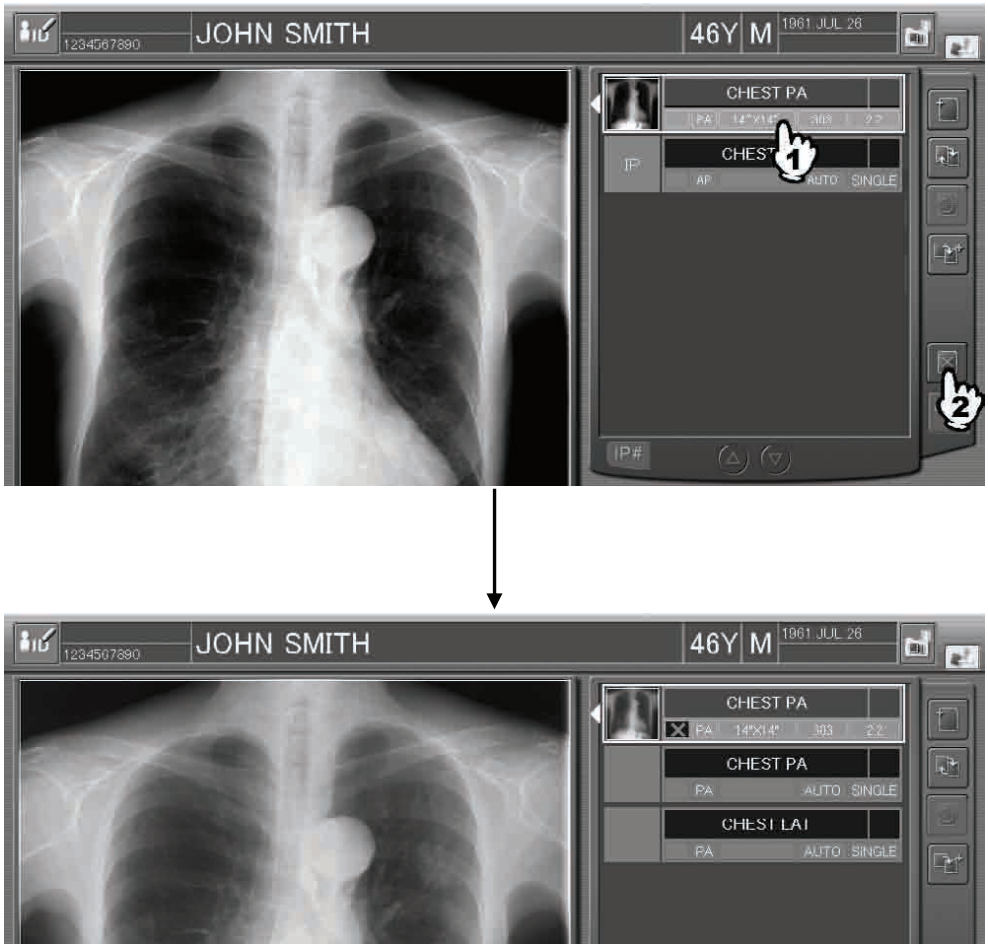
Performs re-exposure/additional exposure to the exposure menus in a study.

3.5.1 Re-exposure

Performs re-exposure for the exposure menu to which images have been read. Note that the read images for this exposure menu will be handled as mis-exposures when performing this operation.

Select the exposure menu to which an image has already been read, and then select .
The read image is handled as rejected, and the exposure menu for re-exposure is displayed (selected). Perform the image reading again. (The image handled as rejected cannot be output to the external devices.)

Sample of one-image display mode :

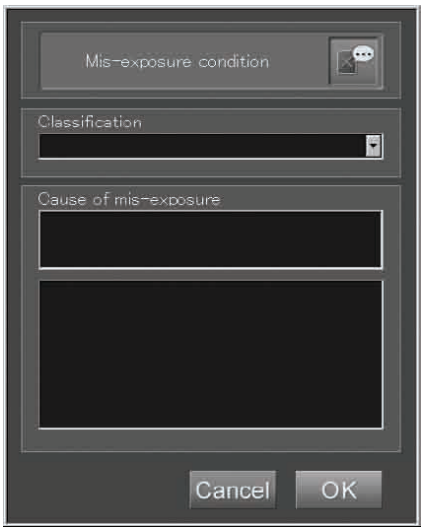


Sample of six-image display mode :

To release the rejection, select the exposure menu handled as rejected, and select again. The exposure menu for re-exposure remains as is.

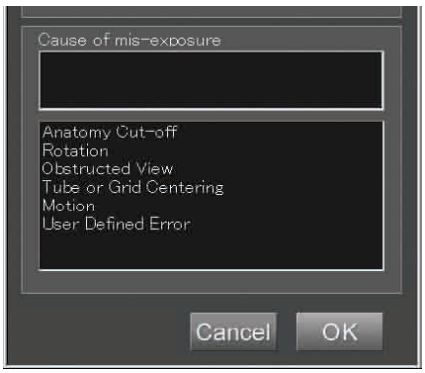
If is selected, a box where a cause of the rejection is to be entered will open depending on setting performed at installation. When entering a cause of the rejection, is in the activated state, as shown below, which is changed alternately every time is selected.

From the drop-down list that opens, select a classification according to which the image is to be handled as rejected.

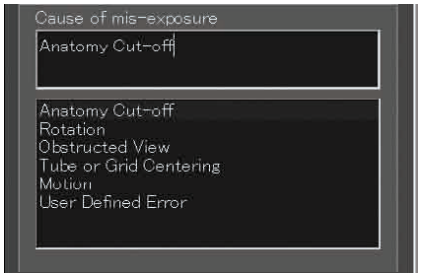


"Rejection reason input box"

Comments pre-determined for the classification will be listed in the box below another one where a cause of the rejection is to be entered.
Select a cause for it from the displayed list.



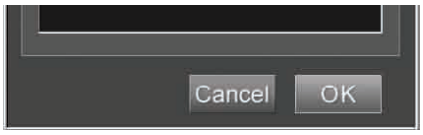
A cause thus selected will be displayed in the relevant box.
It is also possible to input any characters in this box.
(Classification and comments can be determined using the User Utility function. For details, refer to [Chapter 3 TABLE SETTING / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].)



NOTE

When you are using the Retake Analysis function (Retake Analysis Software), make sure to select any of the comments listed in the “Cause of mis-exposure (rejection)”. It is not allowed to input a free comment in this box.

Select then OK. The box will be closed to complete the necessary input. The image will thus be handled to be failed.



Cancel : Cancels operations. Note, however, that the state of mis-exposure will not be changed.

The box shown above opens also when canceling the state of mis-exposure. remains unselected. If OK is selected while in this state, the box will be closed to cancel the rejection state.

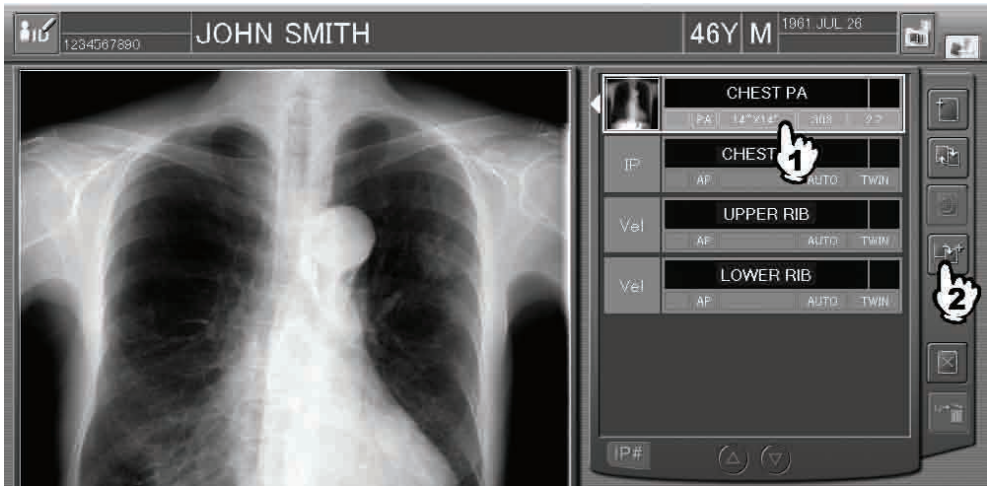
NOTE

Whenever a change was made for the “Classification”, be sure to re-select the “Cause of mis-exposure (rejection)”.

3.5.2 Additional Exposure

Performs additional exposure with the same exposure menus as those that have already been selected. When performing additional exposure with other exposure menus, add exposure menus by performing operations of “Adding exposure menus”.
For how to add exposure menus, see [3.3.3 Preparation before Exposure (Image Reading): Adding Exposure Menus].
Select the exposure menu to which additional exposures will be performed, and select .
The exposure menu for additional exposure is displayed (selected). Perform the image reading.

Sample of one-image display mode :

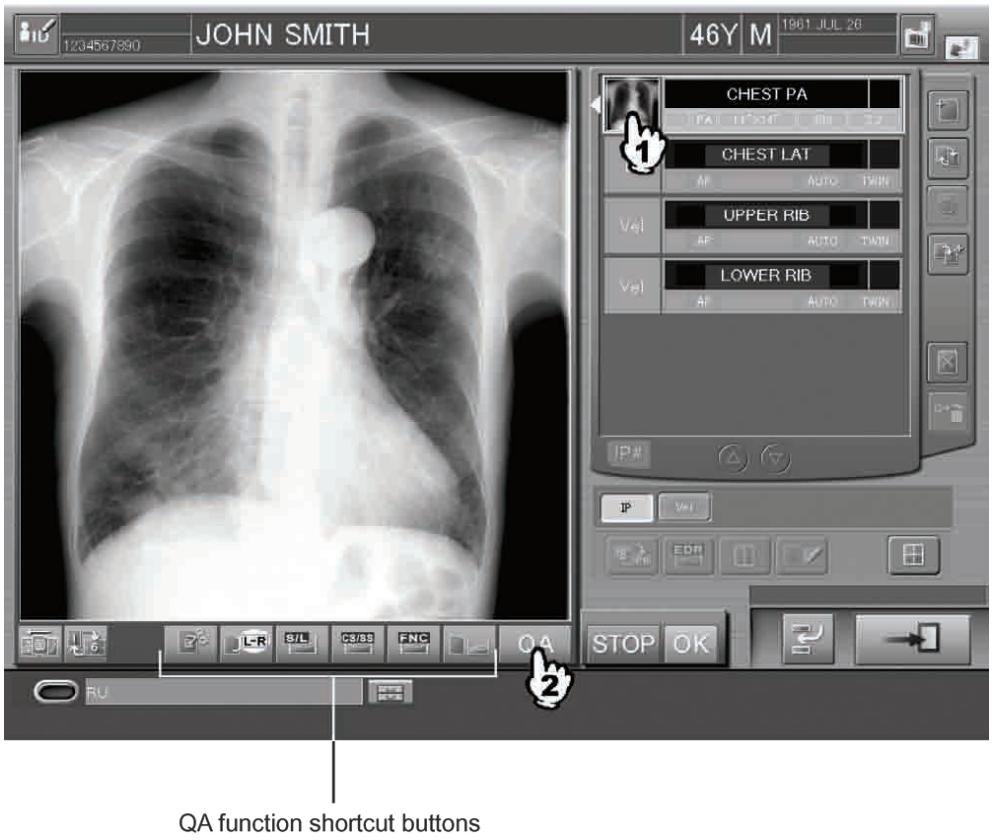


Sample of six-image display mode :

3.6 Editing Images

Edits information for a display image.

After displaying the target image, select one of the QA function shortcut buttons or the QA button. The image processing function that includes image trimming or rotation is denominated the QA function. Individual QA functions are assigned to the relevant shortcut buttons and displayed on the "Study Execution Screen".
Display settings for the QA function shortcut buttons (icons) can be configured by the User Utility. For more information, see [Chapter 10 CUSTOMIZING THE SCREEN DISPLAY / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].



When the QA function shortcut buttons are selected, any of the following processing will be activated.
Directly operating images;
Displaying setting boxes or
Displaying setting boxes not by way of the Image Edit Screen

Direct image operation :

: Reverses image horizontally.

: Rotates image by 180 degrees.

: Reverses image vertically.

: Rotates image to left by 90 degrees.

: Rotates image to right by 90 degrees.

: Displays the image storage box.

Fore more information, see [4.4.6 Saving Image].

Display of setting boxes :

: Displays the image information change box.

Fore more information, see [4.3.1 (5) Film marker].

: Displays the technologist information change box.

Fore more information, see [4.3.1(4) Editing technologist information].

: Displays the film annotation character input box.

Fore more information, see [4.3.1 (3) Editing image information].

Display of setting boxes not by way of the Image Edit Screen :

: Displays the magnified image display box of the Image Edit Screen.

Fore more information, see [4.4.1 Magnifying Display Image].

: Displays the comment input box of the Image Edit Screen.

Fore more information, see [4.3.1(6) Comments on image/study].

: Displays the rotation setting box of the Image Edit Screen.

Fore more information, see [4.3.1(8) Flip/Rotation].

: Displays the trimming setting box of the Image Edit Screen.

Fore more information, see [4.3.1(10) Trimming Adjustment].

: Displays the marker setting box of the Image Edit Screen.

Fore more information, see [4.3.1(11) Inputting markers].

: Displays the annotation character setup box.

Fore more information, see [4.3.1(12) Inputting annotation characters].

: Displays the S value/L value setting box of the Image Edit Screen.

Fore more information, see [4.3.1(13) Changing S/L].

: Displays the CS/SS setting box of the Image Edit Screen.

Fore more information, see [4.3.1(14) Changing SS/CS].

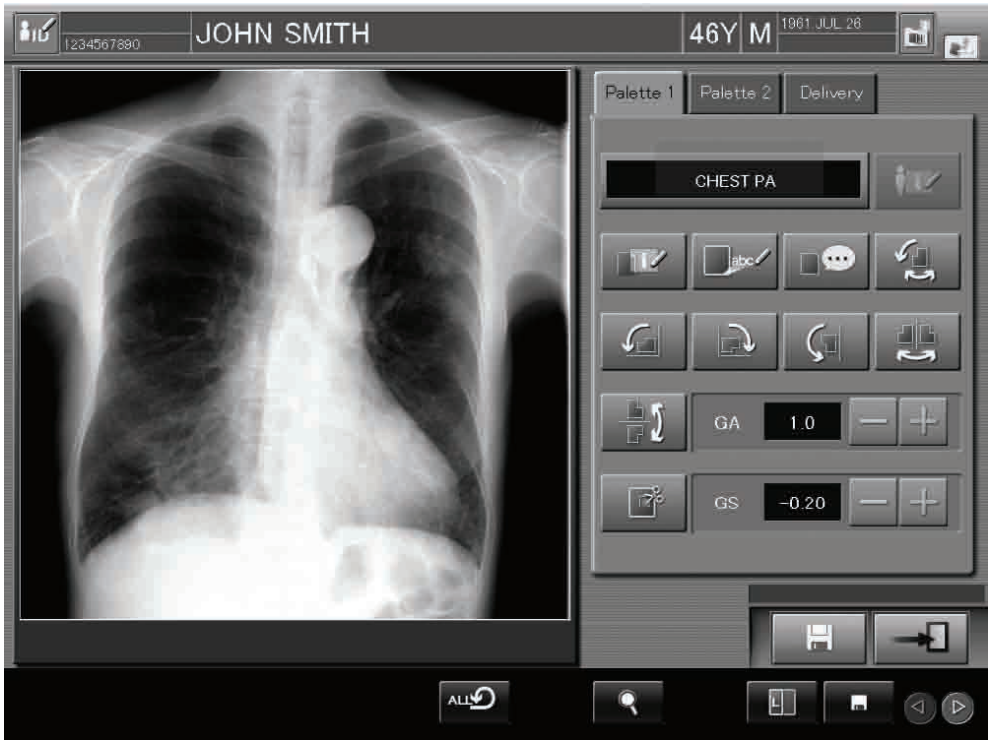
: Displays the FNC setting box of the Image Edit Screen.

Fore more information, see [4.3.1(15) FNC].

: Displays the DICOM file output box.

Fore more information, see [4.4.7 Outputting DICOM Files].

When QA is selected, the Image Edit Screen (by an image level) is displayed.
See [Chapter 4. OPERATIONS - IMAGE EDIT] to edit image information appropriately.



: Saves settings.

: Ends image information editing and returns to the Study Execution Screen.

NOTE

- Whether or / is displayed varies depending on the setting performed at installation. When / is displayed, select and then so that the setup data is reflected appropriately.

3.7 Image Delivery

Read images are delivered automatically. Conditions determined in the “Auto-delivery setting” at Property Setting of User Utility are applied.

NOTE

Observe the following when a multiple number of devices are specified as the target destinations. Do as follows when re-delivering an image (that has been delivered once to a multiple number of devices at the same time from the CR Console) after subjecting it to image edit processing (QA).

- If settings of the destination targeted for image delivery are to be changed at time of re-delivery, settings must be determined so that such image is delivered to all originally specified destinations to which it was actually delivered. Otherwise, a mismatch may result in the relative correspondence between images from device to device.

(1) Auto-delivery after QA completion

At the time when image editing (QA) is completed after image reading, the image will be delivered automatically (including film output).
Images cannot be delivered by the user operation. (Image-delivery marks and delivery operation icons are not displayed.)

(2) Distributes images automatically to all attributes whenever an image is read

When the image reading is completed, the image will be auto-distributed (including the film output). For the images to which delivery processing has been started, the image-delivery mark will be displayed.
Note, however, that the study of which delivery is executed with this setting cannot select “Exposure finish” (Finish exposure only) at the time of study completion.

(3) Distributes images automatically only to Print attribute whenever an image is read

When the image reading is completed, the image will be auto-distributed onto film. In this case, other image delivery processing excepting film output will be executed after the exposure terminating operation is done at the Study Execution Screen. For the image to which delivery processing has been started, the image-delivery mark will be displayed.
When is selected in advance, the auto-delivery of the image to be read can be suspended temporarily (is displayed). This icon is used to deliver the image after it is confirmed.
To release temporary suspension, select .
If exposure processing is completed after reading all image exposure menus and then selecting , the temporary suspension is automatically released, and the images will be delivered.
Note that when the study is completed while the IP registered and exposure menu image remaining unread, the study will be handled as interrupted and stacked to the “Local WL” list. The images are thus left undelivered.

Sample of one-image display mode :

Sample of six-image display mode :

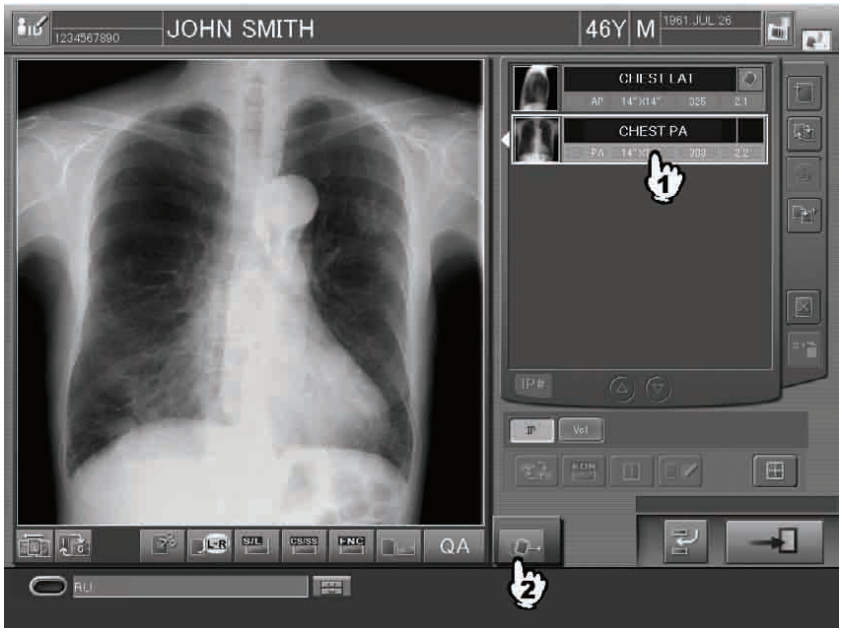
(4) Distributes images to all attributes individually

Usually, the same action for “Distributes automatically after QA completion” is taken. After selecting read image first and then , the image can be delivered individually (including output on film). The image to which the delivery processing is started, the image-delivery mark ( ) is displayed.
If the delivered image is selected, only output on film is executed.
However, a study of which delivery setting is done with this setting cannot select “Exposure finish” (Finish exposure only) at the time of study finish.

(5) Distributes images to the Print attribute only individually

Usually, the same action for “Distributes automatically after QA completion” is taken.
After selecting read image first and then , the image can be delivered individually on film.
The image to which the delivery processing is started, the image-delivery mark is displayed.

Sample of one-image display mode :



Sample of six-image display mode :

(6) Distributes only Print attribute automatically when a certain period of time has passed after image reading

When a certain period of time has passed after image reading completion, the image will be output on film. In this case, other deliveries excepting film output are executed after the exposure terminating operation is done at the Study Execution Screen. For the image to which the delivery processing is started, the image-delivery mark is displayed. The time from image reading completion to film output can be set at the User Utility. Refer to [Chapter 4 PROPERTY SETTING / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

A study of which delivery setting is done with this setting cannot select “Exposure finish” (Finish exposure only) at the time of study finish.

It is possible to disable auto-distribution processing even a certain period of time has passed or deliver immediately before the preset time has passed. Operate appropriately as needed.

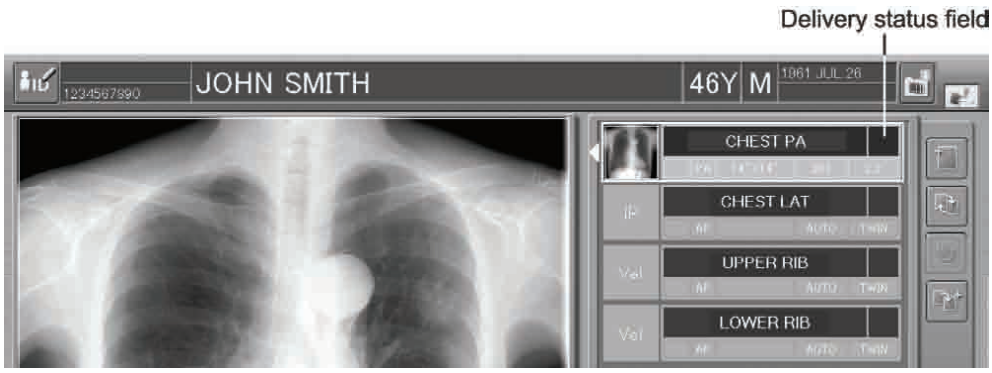
■ **Auto-distribution disabled even a certain period of time has passed**

Use this processing when delivery is required after image confirmation. Perform operations depending on the display mode of the Study Execution Screen.

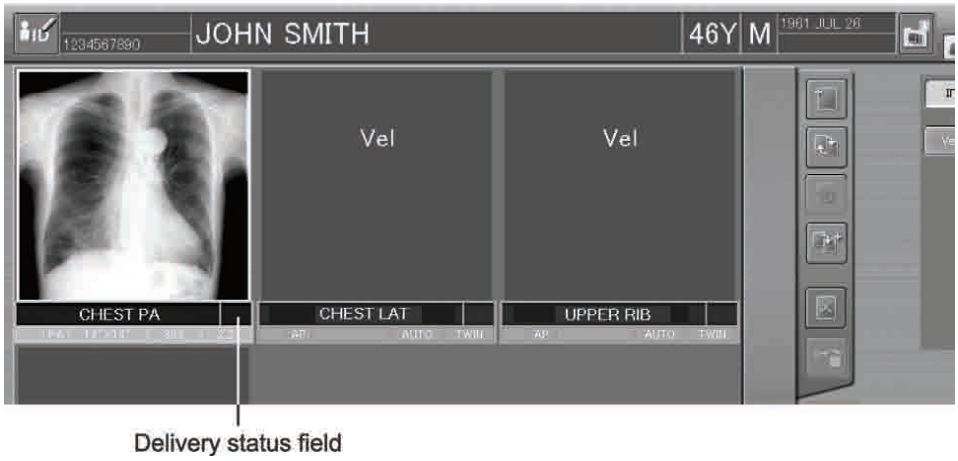
When images are not read yet, select the delivery status in the exposure menu field.

STOP is displayed at the delivery status box.

Sample of one-image display mode :

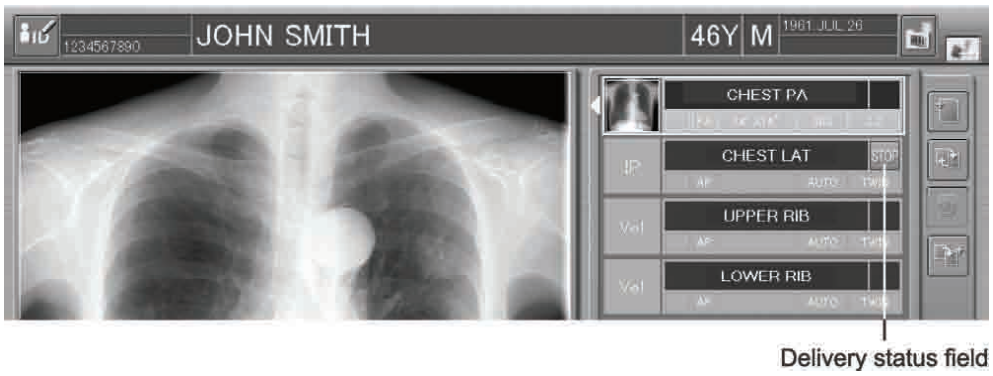


Sample of six-image display mode :

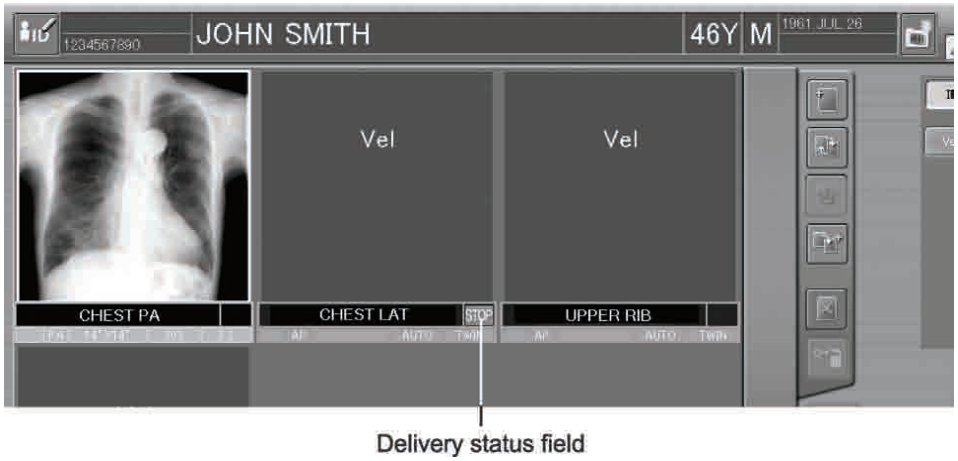


To release STOP, select STOP of the delivery status.

Sample of one-image display mode :

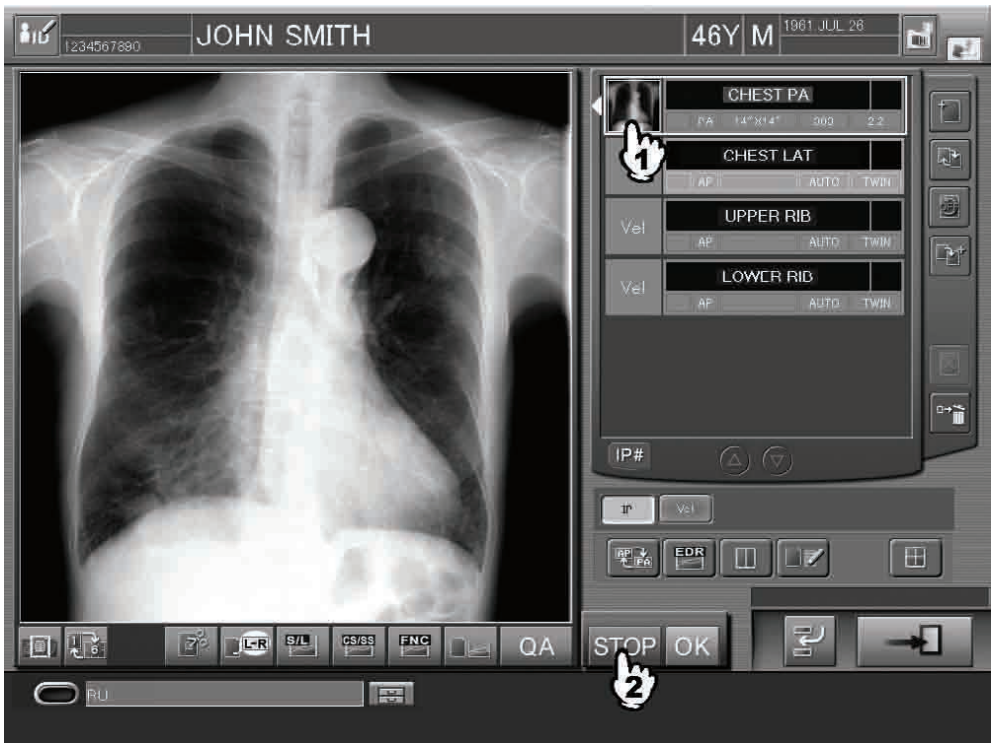


Six-image display mode :

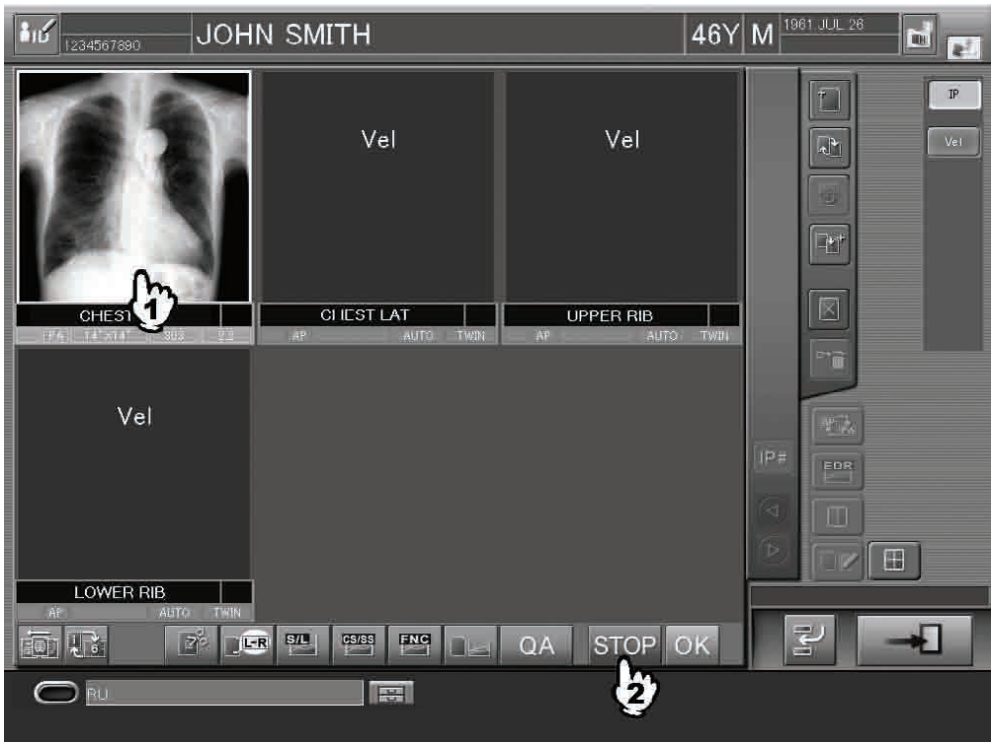


When image reading is completed, select an image and then, select STOP at the bottom of the screen. STOP is displayed at the delivery status field.

Sample of one-image display mode :

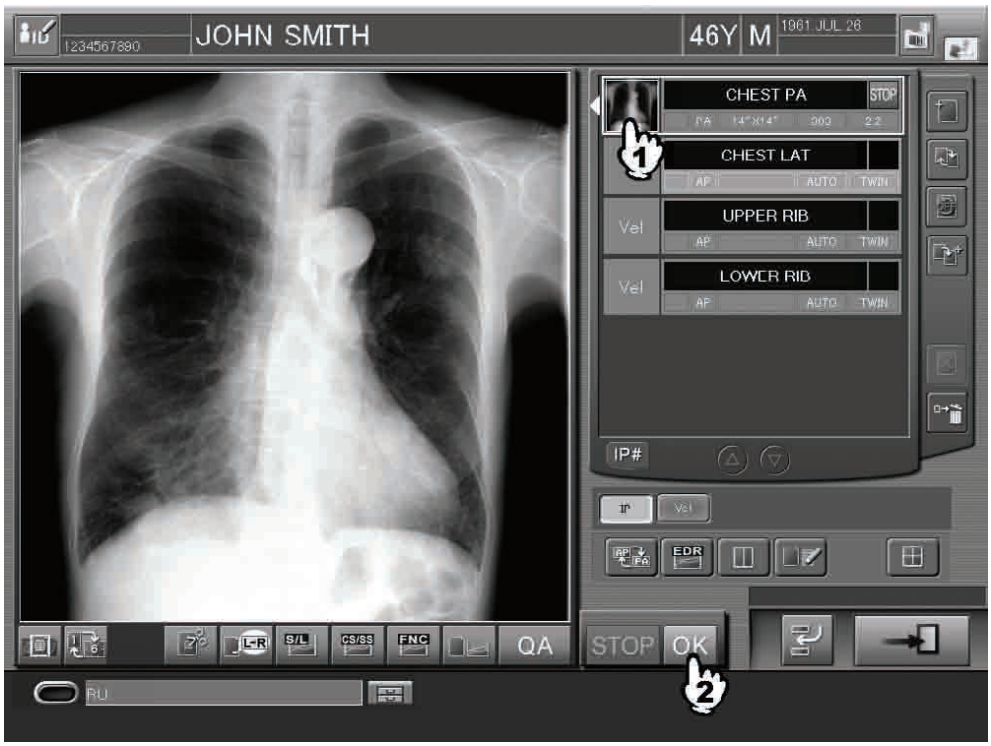


Sample of six-image display mode :

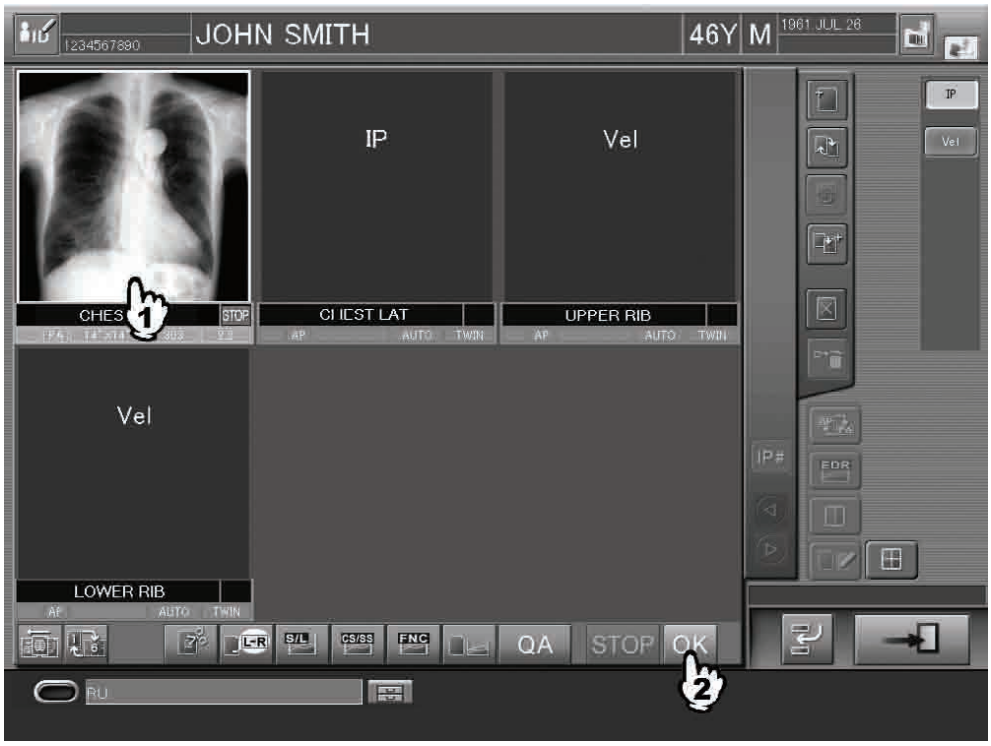


To release STOP, select the image first, and then select OK at the bottom of the screen. The image will be delivered immediately before the preset time has passed.

Sample of one-image display mode :



Six-image display mode :



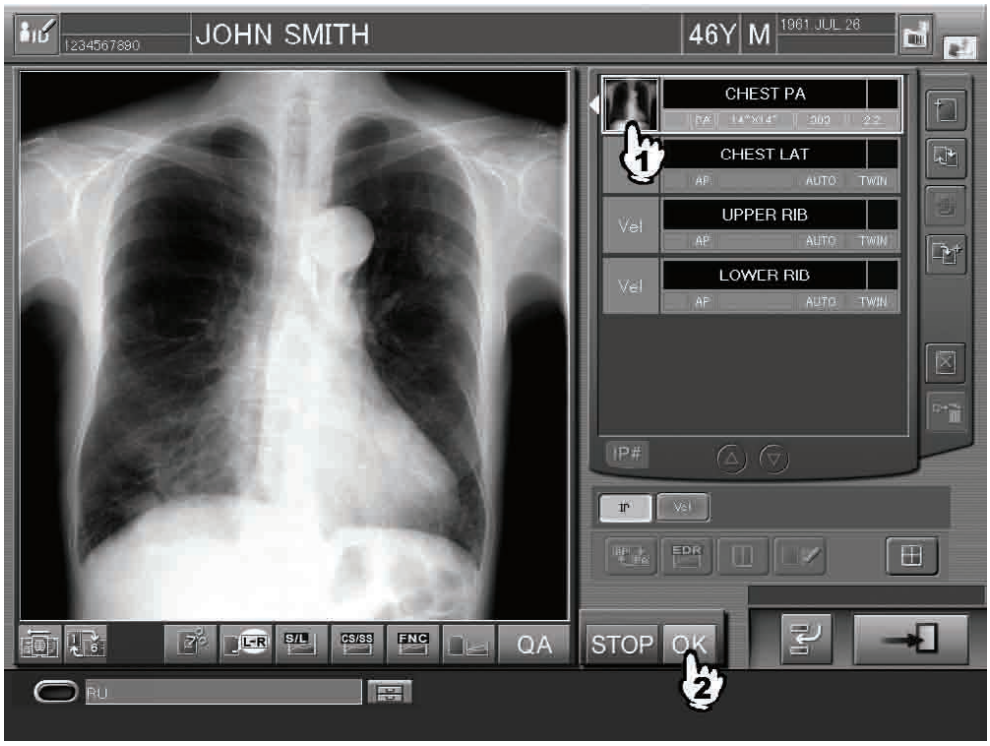
NOTE

When image reading is completed, you cannot select STOP of the delivery status.

■ **Immediate delivery before the preset time has passed**

Use this mode when an immediate delivery is needed or image confirmation is completed. Operate appropriately according to the display mode of the Study Execution Screen.
After selecting an image, select OK at the bottom of the screen.

Sample of one-image display mode :



Sample of six-image display mode :

If is selected and a study is completed after reading images of all exposure menus, STOP is automatically released, and all the images will be delivered before the preset time has passed. However, when the study is completed with the IP registered accordingly and exposure menu image remaining unread, the study is handled as interrupted and stacked to the “Local WL” list. When STOP is not specified on the exposure menu, the image will be delivered automatically when a certain period of time has passed after the image is read in the background. When STOP is specified, the image will not be delivered automatically even when a certain period of time has passed after the image is read in the background, and the study remains in the “Local WL” list.

3.8 Suspending Studies

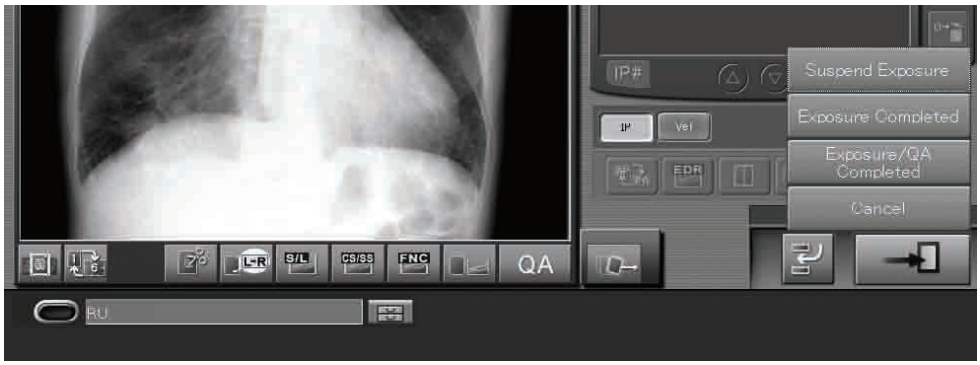
Suspends exposures to hold the current study. Operate appropriately depending on the status of study process.

(1) In the case that the image reading has been done for all exposure menus in the study

Wait for a moment while holding down to display the menu, and then select

.
The study will be suspended and stacked in the “Local WL” list.

One-image display mode :



Six-image display mode :

(2) In the case that exposure menus of unregistered IP remain in the study

Select . The condition set in “The method at the time pushed Study Finish button (The unregistered menu exists.)” field is applied at the Property Setting of the User Utility.
If an exposure menu, for which IP has been registered but images not yet read, is remaining unprocessed, the study will be suspended for all exposure conditions. In such cases, the study will be stacked in the “Local WL” list.

When starting multiple studies at the same time (simultaneous multiple studies startup option):
Similarly, exposure conditions set up in “The method at the time pushed Study Finish button (The unregistered menu exists.)” field will also be applied, when starting multiple studies at the same time.

If no IP has been registered for the exposure menu, the study will be suspended or deleted, depending on the pre-determined settings.
If an exposure menu, for which IP has been registered but images not yet read, is remaining unprocessed, the study will be suspended.

For an exposure menu for which IP has been registered and images already read, the study will be stacked in the “QA” or “Queue” list. Whether it is stacked in the “QA” list or “Queue” list will depend on the pre-determined settings.

Note, however, that when [Exposure Suspended] is selected, both exposure and image edit (QA) will end independent of the exposure menu status. In such case, the study will be stacked in the “Local WL” list.

Sample of one-image display mode :

Sample of six-image display mode :

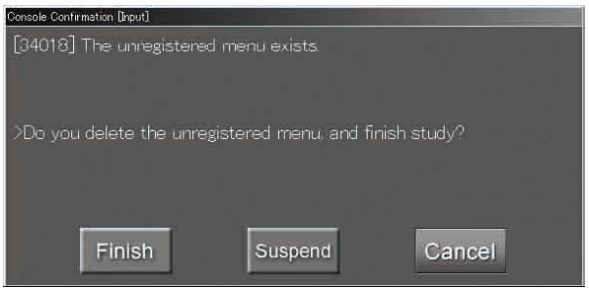
Explained herein are the conditions set in the “The method at the time pushed Study Finish button (The unregistered menu exists.)” field within the User Utility configuration settings and those applied when a study is ended.

The unregistered menu is deleted, and study is finished. :
If this condition is set, the study is completed deleting the exposure menus to which the IP registration has not been done. So, the study cannot be suspended. When the study needs to be suspended, perform the same operation as the previous section.

The unregistered menu is not deleted, and study is suspended. :
If this condition is set, the study is suspended without deleting the exposure menus to which the IP registration has not been done and stacked in the “Local WL” list.

User confirmation :

If this condition is set, the following confirmation box is displayed.



To suspend a study, select Suspend. The study is suspended without deleting the exposure menus to which the IP registration has not been done and stacked in the “Local WL” list.

Finish : If this button is selected, the study is completed with deleting exposure menus to which the IP registration has not been done automatically. Do not select it when the study needs to be suspended.

Cancel : Cancels operation.

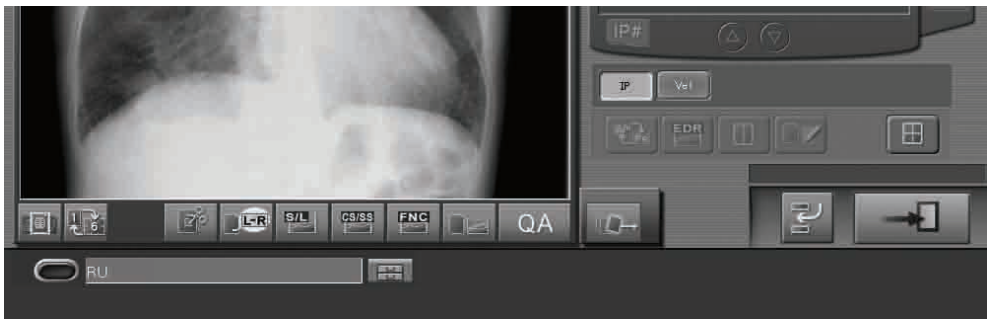
3.9 Completing Studies

Completes the current study. Operate appropriately depending on the status of study process. When is selected before completing the study, the priority of image output can be set.

(1) In the case that the image reading has been done for all exposure menus in the study

Select . The condition set in “The method at the time pushed Study Finish button (There is no unregistration menu.)” at the Property Setting of the User Utility is applied.
The condition set at “The method at the time pushed Study Finish button (The unregistration menu exists.)” will also be applied in the same manner for multiple studies started at the same time.

Sample of one-image display mode :



Sample of six-image display mode :

Explained herein are the conditions set in the “The method at the time pushed Study Finish button (The unregistered menu does not exist.)” field within the User Utility configuration settings and those applied when a study is ended.

Finish exposure only :
If this condition is set, the exposure is terminated, and the study will be stacked in the “QA” list.

Finish exposure and QA :
If this condition is set, the exposure and the image editing (QA) are terminated, and the study is stacked in the “Queue” list.
For multiple studies starting at the same time, both exposure and image edit (QA) will be finished for all the studies.
If no IP has been registered for the exposure menu, the study will be added to the Local WL list or deleted, depending on the setting performed with the User Utility.
If the study concerned is IP-registered, but whose images have not been read, the study will be stacked to the “QA” list. Furthermore, if the study concerned is IP-registered and whose images have been read, the study will be stacked to the “Queue” list.

If terminating exposures with a different condition from the setting of the User Utility, wait for a moment while holding down to display the menu, and select Exposure Completed or Exposure/QA Completed.

Sample of one-image display mode :

Sample of six-image display mode :

Study Suspended :
The exposure is stopped halfway through processing and the current study is suspended. For details, see [3.8 Suspending Studies].

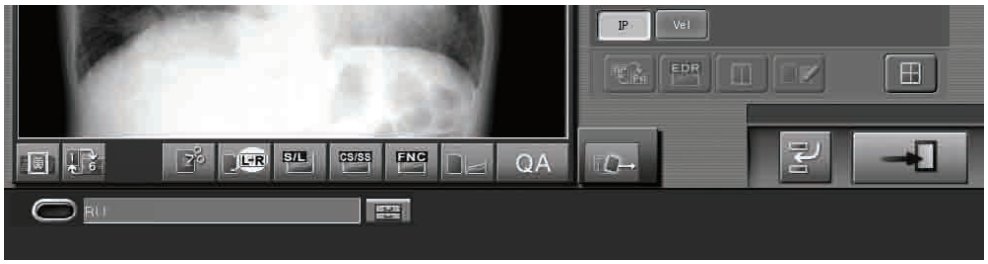
Exposure Completed :
The exposure is terminated, and the study is stacked in the “QA” list. It cannot be selected when “Automatically distribute images to all attributes whenever an image is read.” is set for “Auto-distribution Setting” at the Proper Setting of the User Utility.

Exposure/QA Completed :
The exposure and the image editing (QA) are terminated.
The study is stacked in the “Queue” list.
For multiple studies starting at the same time, both exposure and image edit processing (QA) will be finished for all the studies.
If no IP has been registered for the exposure menu, the study will be added to the Local WL list or deleted, depending on the setting performed with the User Utility.
If the study concerned is IP-registered, but whose images have not been read, the study will be stacked to the “QA” list. Furthermore, if the study concerned is IP-registered and whose images have been read, the study will be stacked to the “Queue” list.

(2) In the case that the exposure menus of unregistered IP remain in the study

Select . The condition set in “The method at the time pushed Study Finish button (The unregistration menu exists.)” at the Property Setting of the User Utility is applied.
The exposure can be completed with a different condition from the setting of the User Utility.
Refer to [(1) In the case that the image reading has been done for all exposure menus in the study]. (In this case, the exposure menus of unregistered IP will be deleted automatically.)

Sample of one-image display mode :

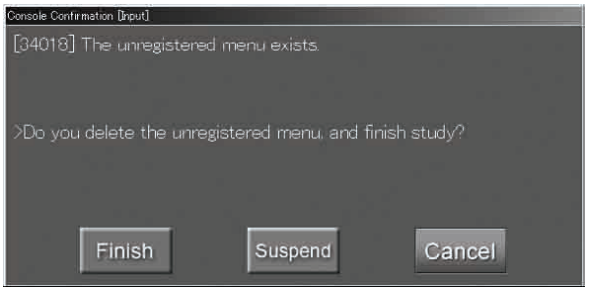


Sample of six-image display mode :

Explained herein are the conditions set in the “The method at the time pushed Study Finish button (The unregistered menu exists.)” field within the User Utility configuration settings and those applied when a study is ended.

The unregistered menu is deleted, and study is finished. :
If this condition is set, the exposure menus of unregistered IP are deleted automatically, and the study is completed accordingly. The completing action will be either “Finish exposure only” or “Finish exposure and QA” following the condition applied in the previous section.

The unregistered menu is not deleted, and study is suspended. :
If this condition is set, the study is suspended without deleting the exposure menus to which the IP registration has not been done. So, the study cannot be completed. When completing the study, use the same procedure as for [(1) In the case that the image reading has been done for all exposure menus in the study] to complete the exposure with different condition from the setting of the User Utility.



“Confirmation box”

User confirmation :
To finish this study, select Finish.
The exposure menus will be terminated deleting those menus to which the IP registration has not been performed automatically. The completing action will be either “Finish exposure only” or “Finish exposure and QA” following the condition applied in the previous section.

Suspend : If this button is selected, the study will be suspended without deleting the exposure menus to which the IP registration has not been done.
Cancel : Cancels operation.

FUJI COMPUTED RADIOGRAPHY

Chapter 4

OPERATIONS
IMAGE EDIT

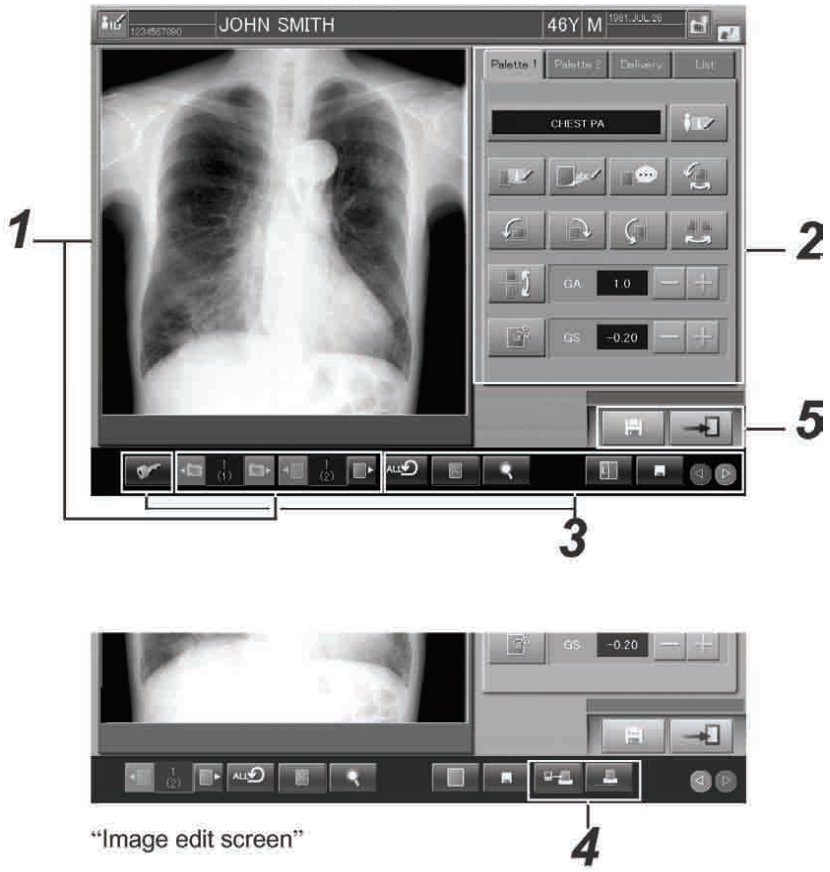
4.1 Operation Outline

At the Image Edit Screen, the image editing is performed.
The Image Edit Screen has two kinds of screen for “by a study level” and “by an image level”.

- By a study level: Selects studies from individual lists and edits images appropriately.
- By an image level: Edits images selected on the “Study Execution Screen”.

Items editable on the “Image Edit Screen” are different whether by a study level or by an image level.

The following indicates an outline and steps of the operations.



(1) Displaying Screen

Displays the screen when editing an image by a study level.
For a study that includes multiple images, selecting or after the screen is opened will enable the display of previous or next image.
When multiple studies are selected, selecting or after an image is displayed will enable the display of previous or next study. For details, see [4.2 Displaying Screen].

(2) Editing Images

Edits information of a displayed image in the [Palette], [Delivery] and [List] folders, when an image is edited by a study level. Select each folder tab, and edit an information item appropriately.
When editing an image by an image level, you can edit information of a displayed image in the [Palette] and [Delivery] folders of the Image Edit Screen. The [List] folder will not be displayed.
For details, see [4.3 Editing Images].

(3) Using Utility

Operates various utility functions (Magnifying display image/Changing parameters/Reprinting display image/Setting rejected image/Locking study/Saving image/Outputting DICOM files/Image special print/Resetting).

Perform these operations accordingly. The “Magnifying display image*[1]/Changing parameters/Reprinting display image/Saving image/Resetting” are common functions and can be used at the Image Edit Screen by an image level, and the icons for other functions will not be displayed.

*1 : In the case of the CR Console Lite, the Magnifying display image is optional function.
For details, refer to [4.4 Using Utility (QA Image Controller Buttons)].

(4) Outputting Images

Outputs images for the study currently displayed now. Select . The output conditions follows the setting of the “Delivery” folder. For details of the operations, refer to [4.5 Outputting Images].

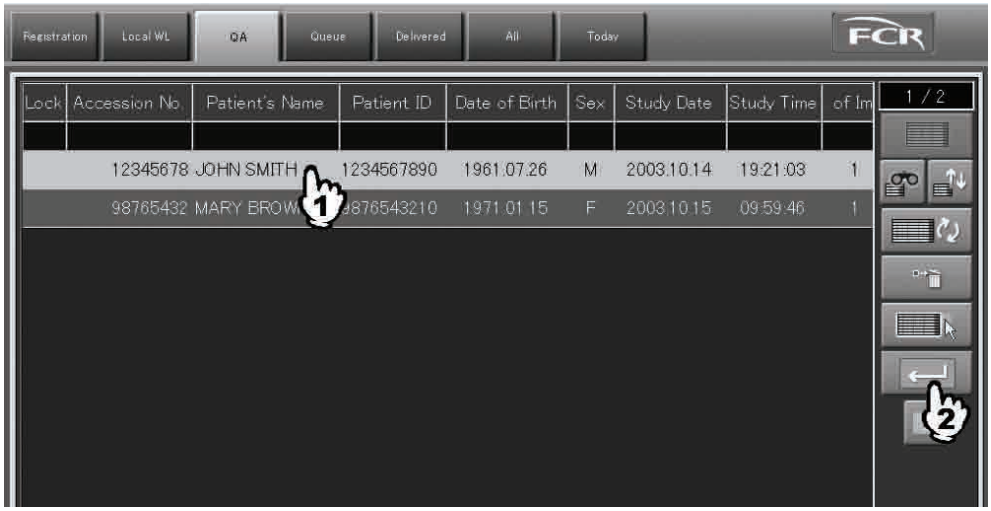
(5) Completing Image Edit

Completes image information edit. Select .

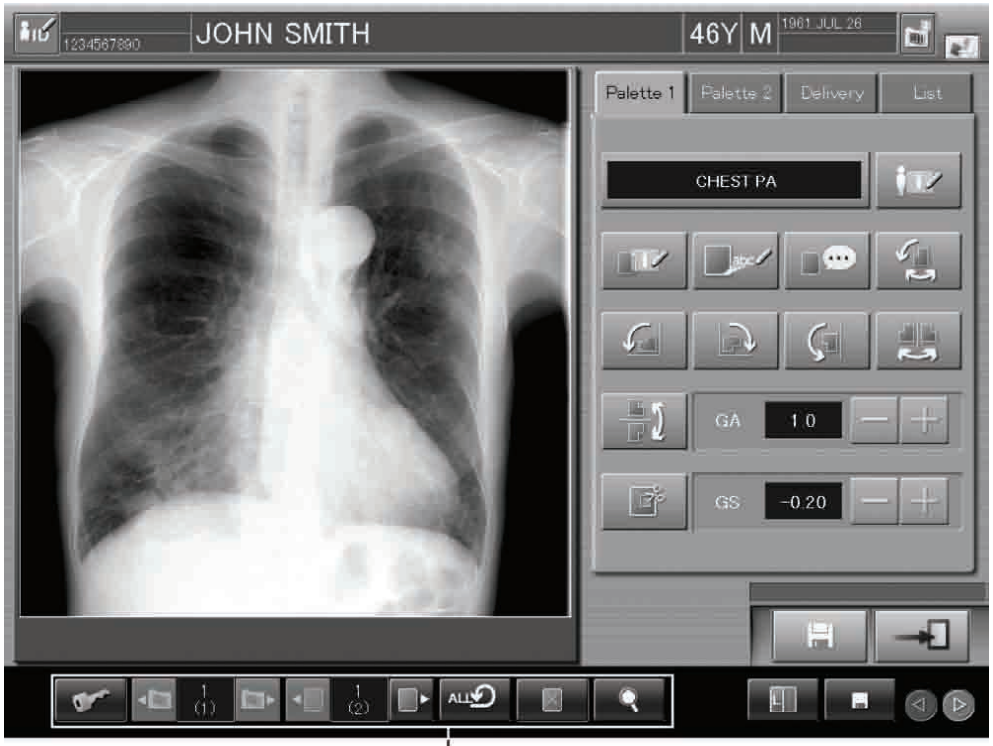
For details of the operations, refer to [4.6 Completing Image Edit].

4.2 Displaying Screen

Displays the Image Edit Screen by a study level. When displaying the Image Edit Screen by an image level, refer to [3.6 Editing Images].
Select a study for which exposures are already completed in each list (QA/Delivered/All/Today), and then select . However, the studies to which the image editing (QA) is currently performed at other CR Consoles cannot be opened.



The Image Edit Screen is displayed.
When multiple CR Consoles are connected, a study whose images are saved in other inactivated CR Consoles cannot be targeted for image edit processing.



"Image Edit Screen"

QA image control buttons

For a study that includes multiple images, previous or next image can be displayed if or (image change) is selected after the screen has opened.
When multiple studies are selected, images of previous or next study can be displayed if or (study change) is selected after an image has been displayed.
As the display property can be set at the "User Utility", refer to [Chapter 10 CUSTOMIZING THE SCREEN DISPLAY / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

/ : Displays previous or next image.

/ : Displays previous or next study.

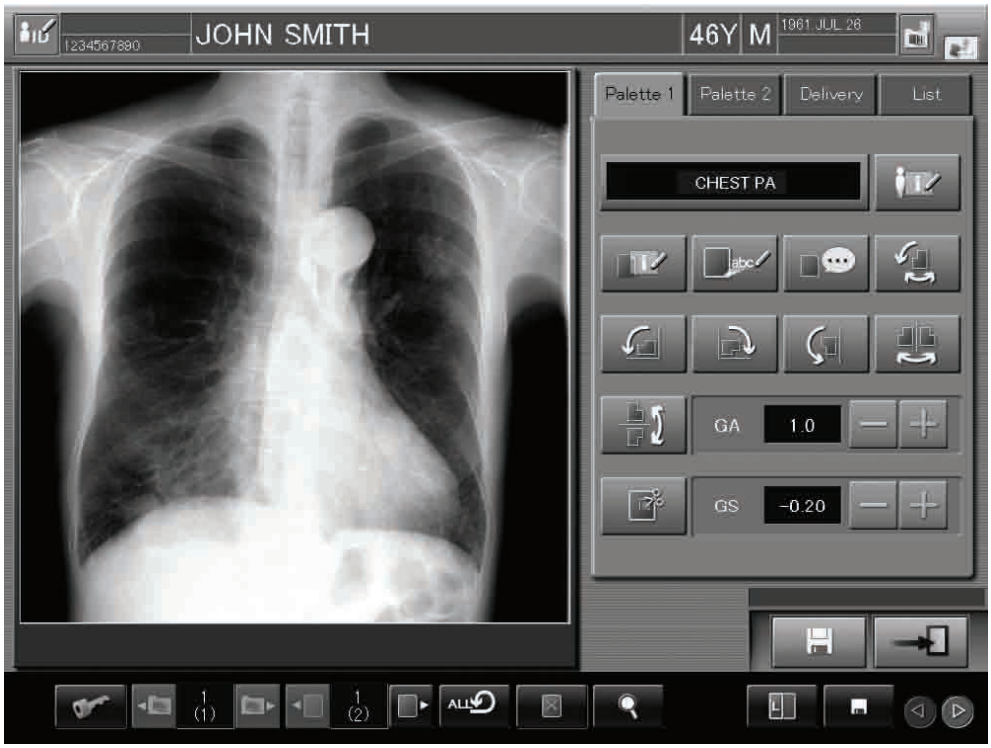
/ : Scrolls the QA image controller buttons.

4.3 Editing Images

Edits information of a displayed image in the [Palette], [Delivery] and [List] folders, when an image is edited by a study level. Select each folder tab, and edit an information item appropriately.
When editing an image by an image level, you can edit information of a displayed image in the [Palette] and [Delivery] folders of the Image Edit Screen. The [List] folder will not be displayed.

4.3.1 Palette

Select the tab of the “Palette 1” or “Palette 2” folder.
It is pre-selected immediately after the screen is displayed.
As the tab names can be set at the “User Utility”, refer to [Chapter 10 CUSTOMIZING THE SCREEN DISPLAY / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].



Each item is explained hereafter.
The display environment of the QA button folder can be set at the “User Utility”.
Refer to [Chapter 10 CUSTOMIZING THE SCREEN DISPLAY / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

NOTE

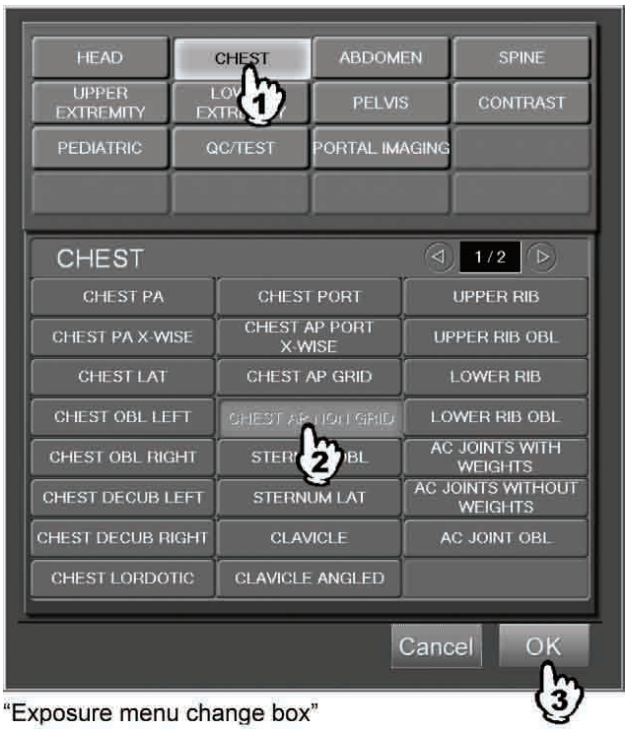
Before using image processing, ensure that it does not affect image reading. If image processing task affects image reading, adjust the image processing parameters appropriately.
There is apprehension that depending on the exposure conditions applied, subject to be exposed or X-ray generator used for exposure, image processing task becomes burdensome, which then causes artifacts to occur, resulting consequently in undesirable. effects in image reading.

(1) Changing exposure menus

Changes exposure menus.

When CHEST PA is selected (an exposure menu of the current image is displayed), the exposure menu change box is displayed.

Select a menu item in the menu group to display the exposure menu. Select the displayed exposure menu and then press OK.



"Exposure menu change box"

1 / 1 : Displays page number of the exposure menu selection button.
Selecting ◁ turns one page backward and ▷ one page forward.

Cancel : Cancels operation.

(2) Editing patient information

Edits patient information as follows.

When the user authentication has been specified according to the setting performed at installation, the permission to use this function can be set to each user by the User Utility. For details, refer to [Chapter 3 TABLE SETTING / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

When is selected, the edit box is displayed.

After modifying information items as necessary, select OK.

However, patient information cannot be edited at the Image Edit Screen by an image level. To modify patient information, return to the Study Execution Screen and then select .

Refer to [3.2.1 Modifying Patient Information].

"Patient information input box"

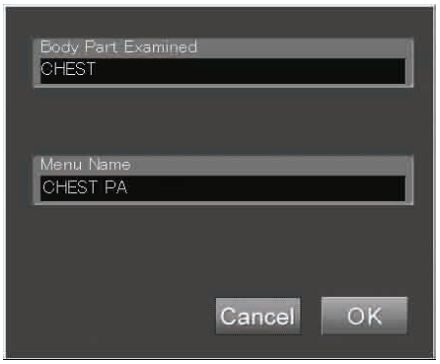
Cancel : Cancels operation.

(3) Editing image information

Edits image information.

When the button is selected, the edit box is displayed.

After modifying information items as necessary, select OK.



"Patient information edit box"

Cancel : Cancels operation.

(4) Editing technologist information

Edits technologist information of the currently displayed image.

When the button is selected, the edit box is displayed.

After modifying the technologist, select OK.

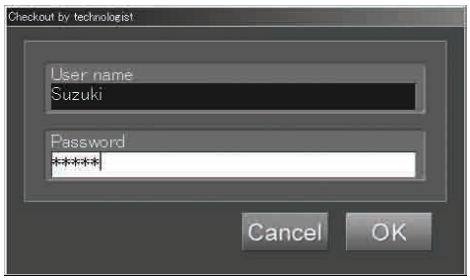
"Technologist information edit box"

Cancel : Cancels operation.

■ **When the "Checkout by technologist box" displays in an attempt to change the "Technologist" field**

When the user authentication has been specified to be used according to the settings performed at installation, an attempt to change the technologist (user) in the "Technologist" field will display the "Checkout by technologist box". This box displays user name with which the user logged in the program and the password.

Input the "User name" and "Password" after another technologist has been selected and select OK. The technologist shown in the "Technologist information edit box" will then be changed accordingly. (Note that a logged-in technologist will not be changed.)



"Checkout by technologist box"

Cancel : Cancels operation.

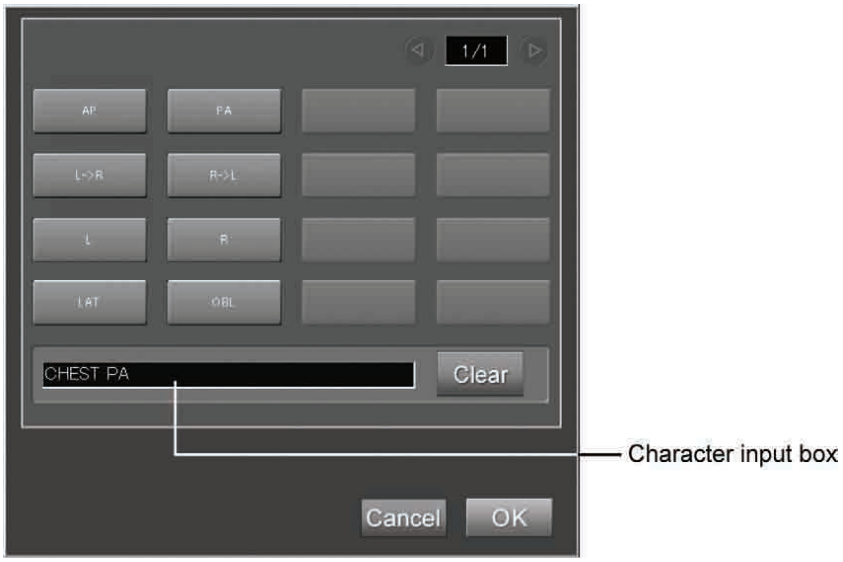
(5) Film marker

Sets a film marker (characters to be displayed on film) as follows.

When is selected, the setting box is displayed.

Select a film marker.

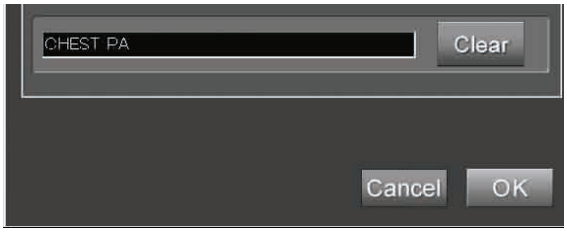
However, it is possible to input arbitrary characters in the input field at the bottom of the box. Input characters and press Enter .



"Film marker setting box"

After completing the above operation, select OK .

The box will be closed to complete input processing.



Cancel : Cancels operation.

Clear : Clears the setting and closes the box.

/ : Turns a new page.

(6) Comments on image/study

Sets comments on image/study.

When is selected, a setting box is displayed.

When the image comment is set, select “Image comment”. When the study comment is set, select “Study comment”. The study comment cannot be edited at the Image Edit Screen by an image level. After inputting comments, select OK.

“Image comment/study comment input box”

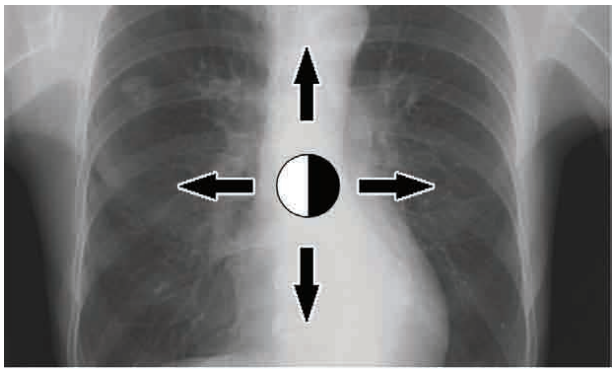
Cancel : Cancels operation.

(7) Changing GA/GS

Changes values of GA (contrast) and GS (density).

Select − or + to change the value.

With the display image selected appropriately, the values can be changed also by moving ◑ vertically (GA) or horizontally (GS).

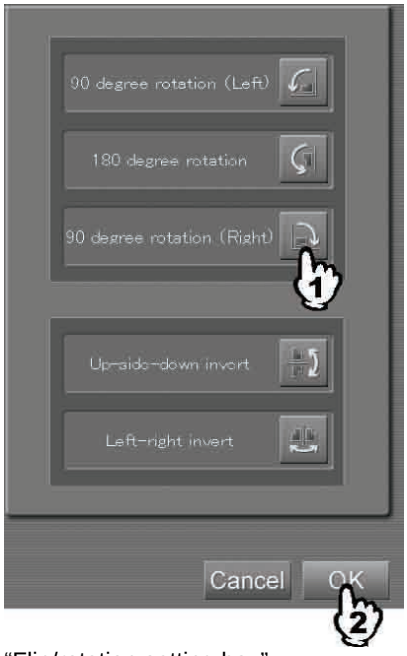


(8) Flip/Rotation

Flips or rotates the image.

When the button is selected, the setting box is displayed.

Select one of the icons and then select OK.



"Flip/rotation setting box"

Cancel : Cancels operation.

: Rotates the image 90 degrees to left.

: Rotates the image 180 degrees.

: Rotates the image 90 degrees to right.

: Flips the image vertically.

: Flips the image horizontally.

(9) Trimming Adjustment

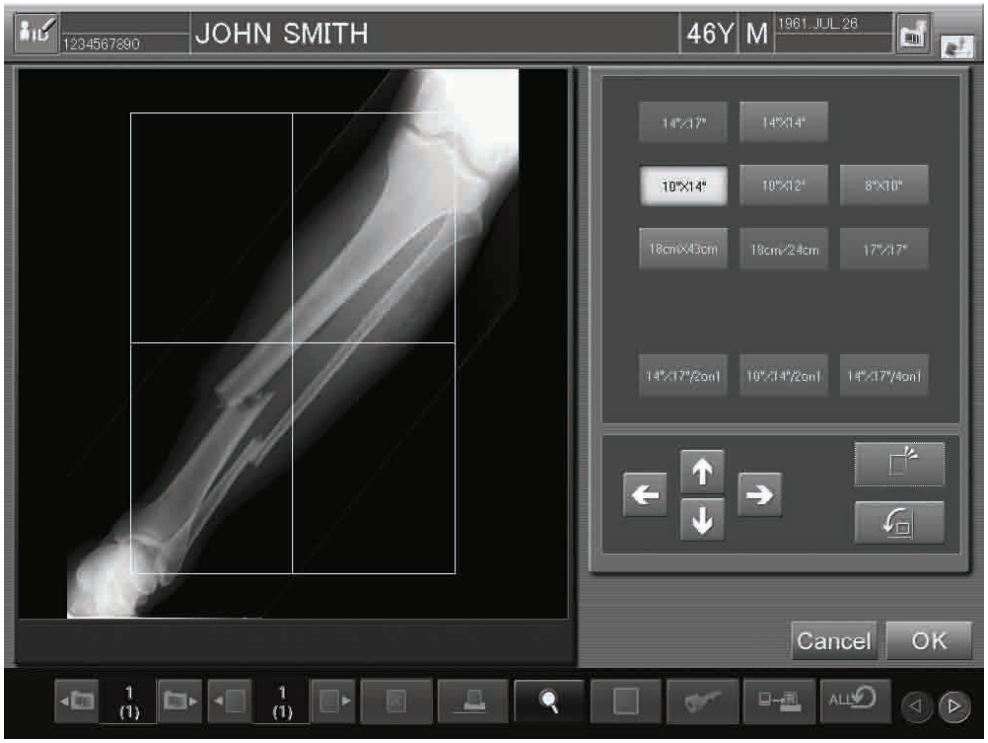
Adjusts trimming processing.

When the user authentication has been specified according to the setting performed at installation, the permission to use this function can be set to each user by the User Utility. For details, refer to [Chapter 3 TABLE SETTING / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

When is selected, the setting box is displayed.

To change the trimming size, select either of the following five icons.

Select an extraction size (two or more extraction sizes can be selected) and reference position for extraction, and then select .



"Trimming adjustment setting box"

: Trims a read image to the 14"x17" size.

: Trims a read image to the 14"x14" size.

: Trims a read image to the 10"x14" size.

: Trims a read image to the 10"x12" size.

: Trims a read image to the 8"x10" size.

: Trims a read image to the 18x43cm size.

: Trims a read image to the 18x24cm size.

: Trims a read image to the 17"x17" size.

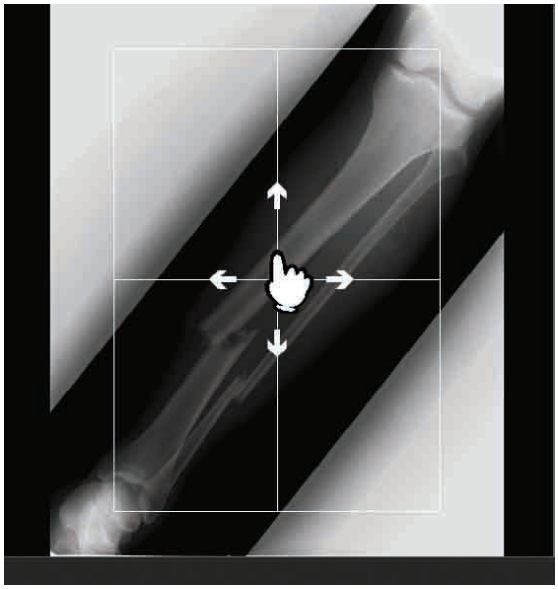
: Trims a read image to the 8"x14" size, the half of 14"x17", if the 2on1 film format is selected for the read image.

: Trims a read image to the 7"x10" size, the half of 10"x14", if the 2on1 film format is selected for the read image.

: Trims a read image to the 7”x8” size, the one fourth of 14”x17”, if the 4on1 film format is selected for the read image.

:

Moves the reference position for trimming up-and-down and right-and-left. (The trimming frame can go further to the outside of the image before extraction. Note, however, that the center point of the trimming frame cannot be located outside the image area.)
Selecting a position within the trimming frame and moving it up and down and/or right and left will also allow you to move the selected position.



: Releases trimming processing. To re-specify the range for trimming, select a position to be determined as the start point for trimming and then select the end point so that a rectangle is formed as the range for trimming.

: Rotates the range for trimming by 90 degrees. For example, the range for trimming specified to 8”x10” is rotated by 90 degrees to make it to be 10”x8”.

NOTES

Trimming adjustments are not available in the following cases.

a) Images read from the FCR5000 series at standard density
b) Composed images or source images for composition
c) Energy subtraction images
d) Some of the images read in FR mode

- When the trimming frame is set up beyond the image before it has been subjected to trimming processing, areas that are beyond the image will be painted black when it is output. Note that the result of image processing will not be yielded as specified when the image is re-output from any external devices that include image display unit.
- Modifying an exposure menu or replacing an image after image trimming processing will retain the trimming setting determined before such a change, resulting thus in disabling re-trimming processing at initial menu setting after such a change.

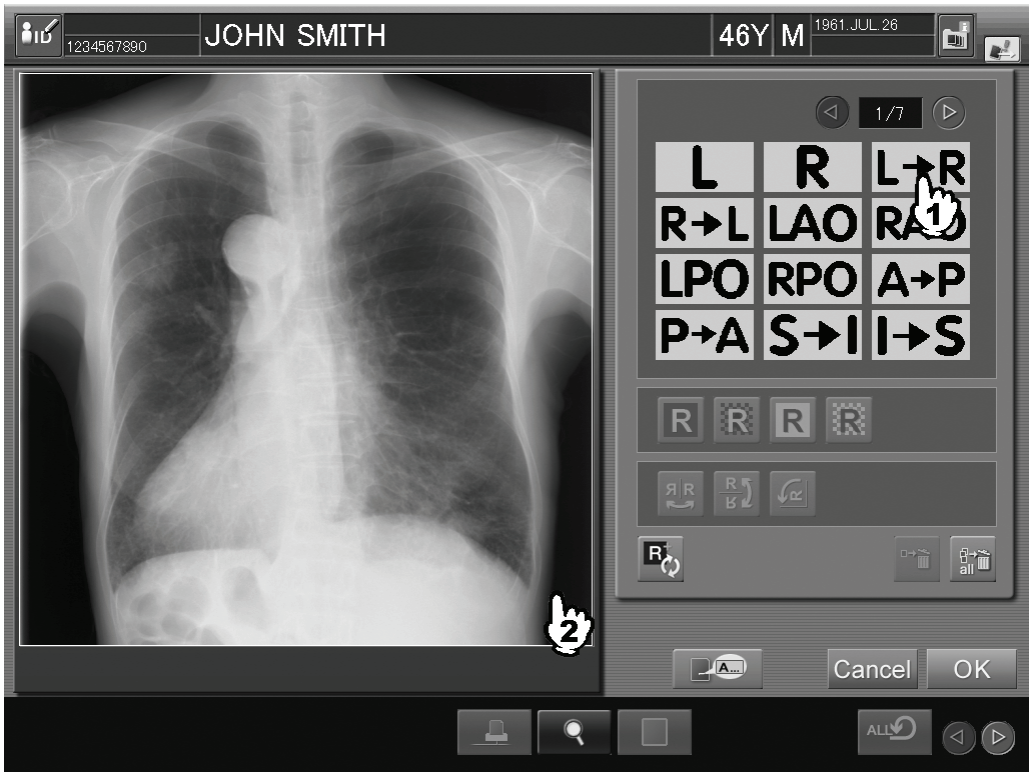
(10) Inputting markers

Inputs markers. (Artifacts are generated around the input markers in images because of frequency processing when they are displayed or output on film by other units.)

When is selected, the setting box is displayed. Select the marker to be input.

Select the desired position on the image. The marker will be input. Up to sixteen markers can be input for each image by repeating selection of markers (above mentioned) and positions.

"Marker setting box"



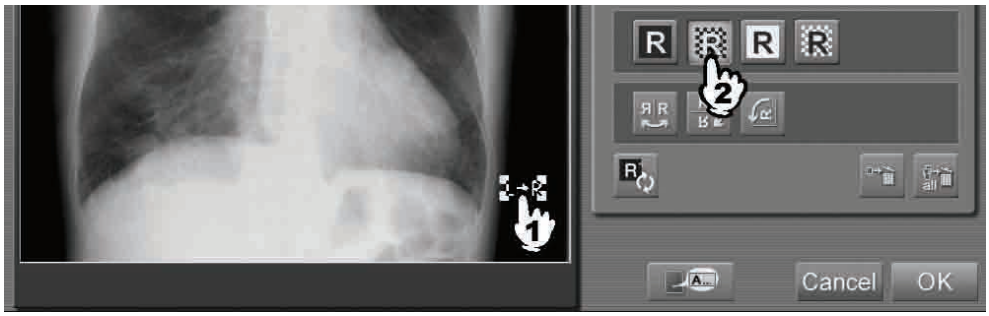
Immediately after the marker is input, it is still selected and can be switched to be selected/unselected by selecting it each time.
When changing the marker position, move the marker while it is selected properly. The marker cannot be positioned to the region other than the image. Note, however, that for an image that has been subjected to trimming processing, the marker positioned outside the trimming frame will not be output.

/ : Turns page if there are multiple pages.

Cancel : Cancels operation.

: Displays the annotation character input box.
For the "Annotation character input box", see [(11) Inputting annotation characters].
Selecting OK in the annotation character input box will complete the marker input as well.

When changing the character color/background color for the marker, select the marker and select one of the following icons.



: White characters/black background

: White characters/transparent background

: Black characters/white background

: Black characters/transparent background

When changing a display direction of the marker, select the marker and select one of the following icons.

: Flips the marker horizontally.

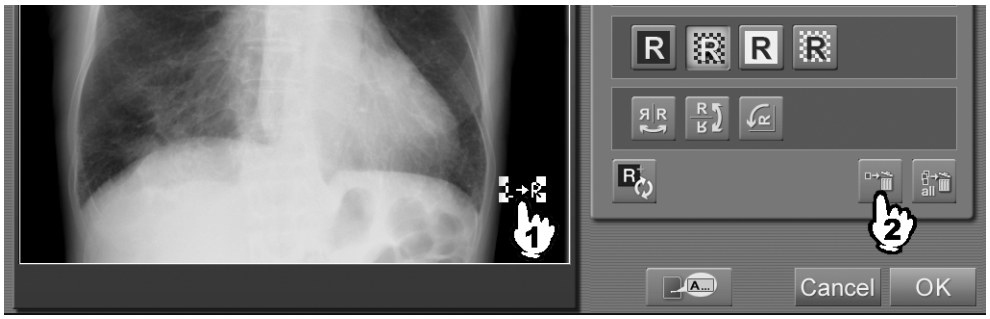
: Flips the marker vertically.

: Rotates the marker 90 degrees to left.

■ Auto-inputting markers

Selecting after setting the marker, it will be reflected on the exposure menu for the image being edited. Up to four markers can be set for an exposure menu.
Once the setting is made, the marker(s) can be displayed automatically on an image exposed with the same exposure menu.
The automatic marker is displayed in a dotted line in black and white. The display position and editing operations are the same as for normal markers.

When deleting the marker, select (deleting all markers), or select the marker and select (deleting the selected marker).



After completing the marker input, select OK.

Selecting OK in the marker input box will also complete the annotation character input. Selecting Cancel cancels operations performed in the annotation character input box.

When the exposure menus are changed or the image switching is performed after the marker input, the marker is erased.

NOTES

- Confirm that the marker(s) is displayed correctly after it is set. When correcting the position of the marker, move it manually.
- The automatic marker is not reflected on a stitched long-view image read in the background.

(11) Inputting annotation characters

Inputs annotation characters. (Artifacts may appear around the annotation characters input on images due to frequency processing when those images are displayed or output on film by other devices.)
When is selected, the setting box is displayed.
To input annotation characters, select to go into the text input mode. (Immediately after the relevant screen has been displayed, this mode remains selected for a certain period of time.)

"Annotation setting box"

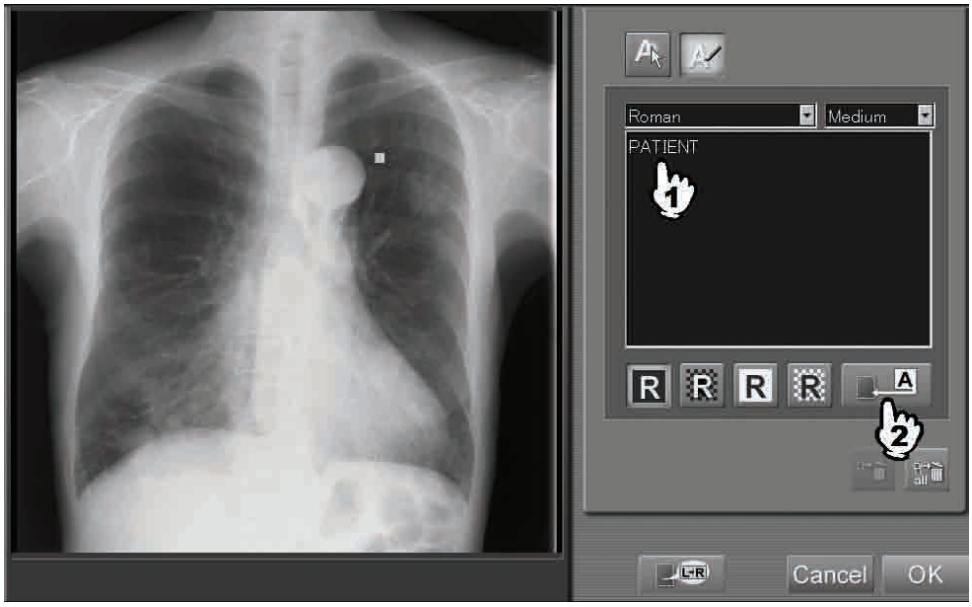
Cancel : Cancels operation.

: Displays the marker input box.
For the "Marker input box", see [(10) Inputting markers].

Selecting OK in the marker input box will also complete the annotation character input. Selecting Cancel cancels operations performed in the annotation character input box.

To specify a position before inputting annotation characters, select the desired position on the image. The point for input of annotation characters is thus determined. To delete such point, re-select it. When no specific position is determined for input of annotation characters, the annotation will be input at the center of the image.
The annotation character position can be changed accordingly even after they have been input.

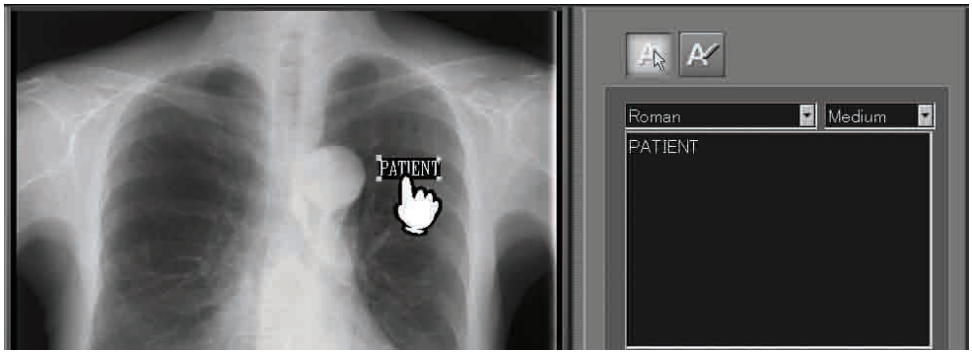
Select desired character size and font and input characters in the input box.
Select then . Those annotation characters are input.
Select and repeat character input and pasting as necessary. You can then input a maximum of 32 annotations.



NOTES

- Do not input user-defined characters. If such characters are input, they may be converted into asterisks and then displayed.
- When you input annotation character strings, pay due attention so that the character strings do not go further to the outside of the image. Annotation character strings positioned outside the image may not be printed when they are output on film.

Immediately after annotation characters have been input, the annotation remains selected (illustration below) and whether it is selected or unselected can be changed alternately every time it is selected. When changing the annotation character position, move it while those characters are selected. (The start point of the annotation cannot be positioned outside the image area. Note, however, that for an image that has been subjected to trimming processing, the characters positioned outside the trimming frame will not be output.)



To change the character color/background color for the annotation, select the annotation characters and then select one of the following icons.

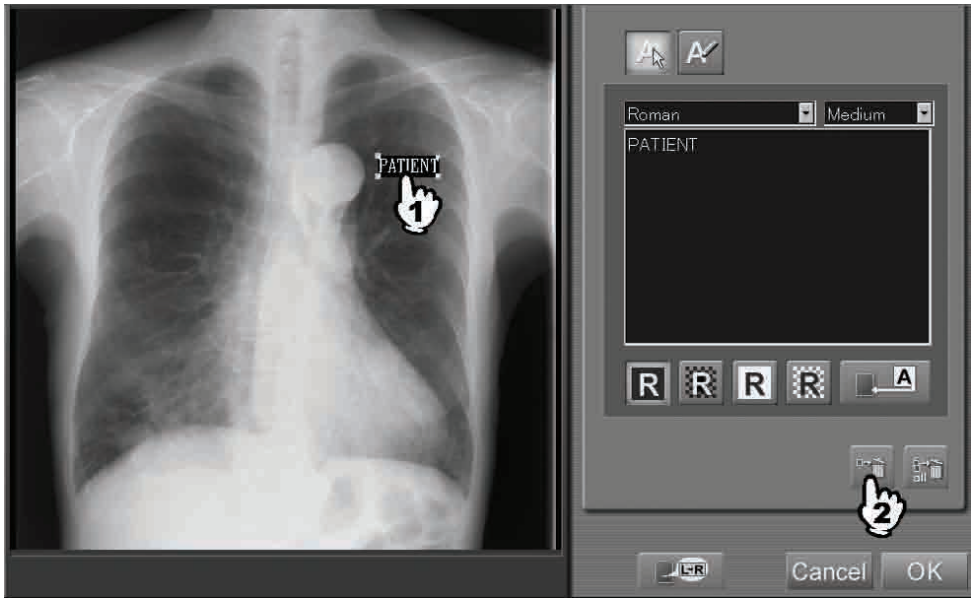
- : White characters/black background
- : White characters/transparent background
- : Black characters/white background
- : Black characters/transparent background

To edit annotation characters, select to go into the annotation selection mode and then select annotation characters you want to edit.

Input modified annotation characters in the box and select .

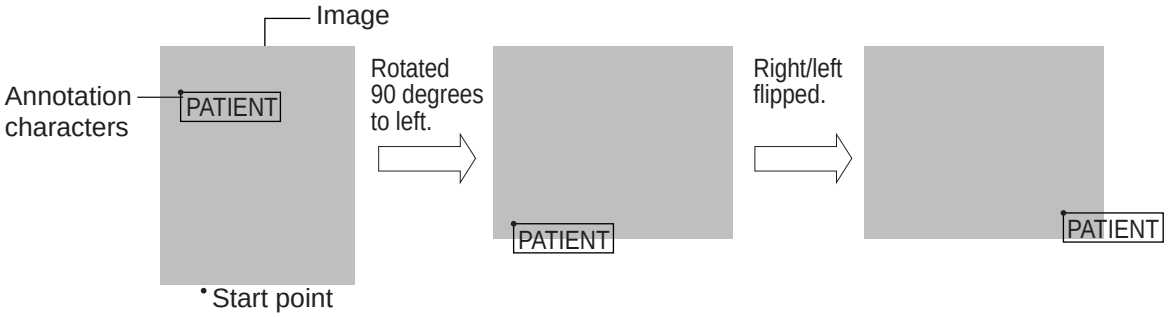
To delete annotation characters, select (deleting all annotation characters), or select to go into the annotation selection mode, and then select characters you want to delete. Select finally (delete).

At the completion of the annotation character input, select OK.



NOTES

- The marker input in the marker input box cannot be deleted with the use of the deletion icon available in the annotation character input box. Delete it in the marker input box. Equally, the annotation characters input in the annotation input box cannot be deleted with the use of the deletion icon available in the marker input box. Delete them in the annotation character input box.
- When the exposure menus are changed or the image switching processing is performed after annotation characters have been input on one image, those characters are erased.
- For the case where annotation characters have been input on an image composed by means of image composition processing (option), those characters are erased if re-composition processing is performed on that composed image.
- When annotation characters are input in the source image for composition, those characters are erased and a new composed image is created accordingly.
- If an image is rotated or flipped, the related annotation characters will also be rotated or flipped consequently, though the character display direction remains unchanged, as illustrated below.



- Annotation characters are output printed on film. If you do not wish to output annotation characters printed on film when images are delivered, contact a designated service supplier.

(12) Changing S/L

Changes values of S/L.

When the S/L button is selected, a setting box is displayed.

Select − or − or + or + to change values, and then select Apply. The changed values will be reflected on the display image.

"S/L values setting box"

S : The center point of the image reading sensitivity decided by the EDR (Exposure Data Recognizer function). When an incident X-ray dose increases, this value decreases, and when an incident X-ray dose decreases, it increases. This value can be set in the range of 4 to 20047.

L : The image reading latitude decided by EDR. It shows the range of incident X-ray dose (from minimum to maximum) as logarithmic values. This value can be set in the range of 0.50 to 4.00.

When the above separation is completed, select OK.

Cancel : Cancels operation.

(13) Changing SS/CS

Changes values of SS/CS.

When the SS/CS button is selected, a setting box is displayed.

Select — or + to change values, and then select . The changed values will be reflected on the display image.

"SS/CS values setting box"

SS : The coefficient given to the parameter concerning the reading sensitivity. It changes the density of images. This value can be set in the range of /(÷)2.0 to *(x)2.0.

CS : The coefficient given to the parameter concerning the tonal curve. It changes the contrast of images. This value can be set in the range of *(x)0.5 to *2.0.

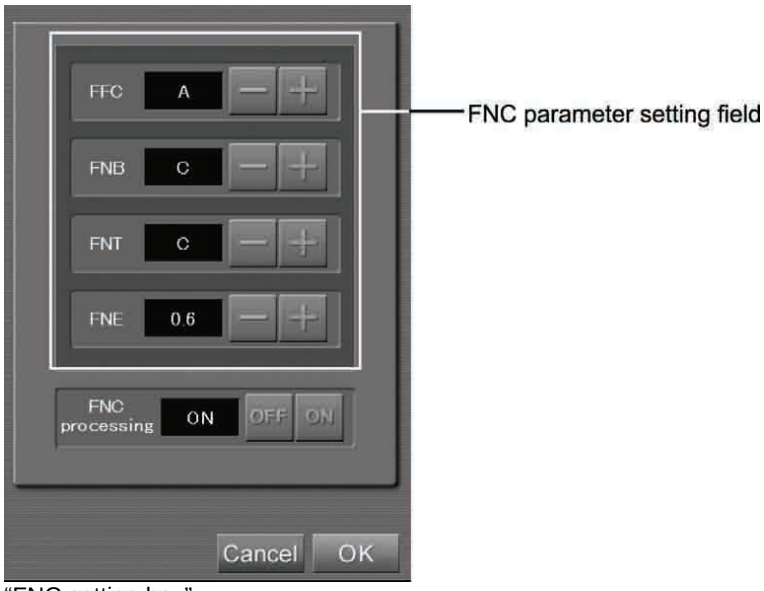
When the above separation is completed, select OK.

Cancel : Cancels operation.

(14) FNC

Sets FNC (Frequency Noise Control) processing.
When the user authentication has been specified according to the setting performed at installation, the permission to use this function can be set to each user by the User Utility. For details, refer to [Chapter 3 TABLE SETTING / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].
When FNC is selected, the setting box is displayed. (FNC is effective for RT, WS (source for image composition/composed image) or ES (L). However, it is not effective for ES (B, S).

Note that the FNC parameter setting field is displayed only the FNC parameter change is determined to be changeable. (As this setting can be done at the "User Utility", refer to [Chapter 4 PROPERTY SETTING / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].
To set FNC, select ON. If not, select OFF.



"FNC setting box"

Select — or + to set FNC parameter values.

FFC: Parameters used to determine the degree of noise control depending on the X-ray exposure dose. This value can be set in the range of A to Z. A is for general exposures, and Z is for linacgraphy.
FNB: Parameters used to determine the degree of noise control according to the frequency element. This value can be set in the range of A to Z. The closer to A, the low-frequency noise control value is larger.
FNT: Parameters used to determine the degree of noise control relating to the image density. The value can be set in the range of A to Z.
FNE: Parameters used to determine the degree of noise control processing. According to determined values, processing intensity is adjusted. This value can be set in the range of 0.0 to 1.0.

After the above operation is completed, select OK.

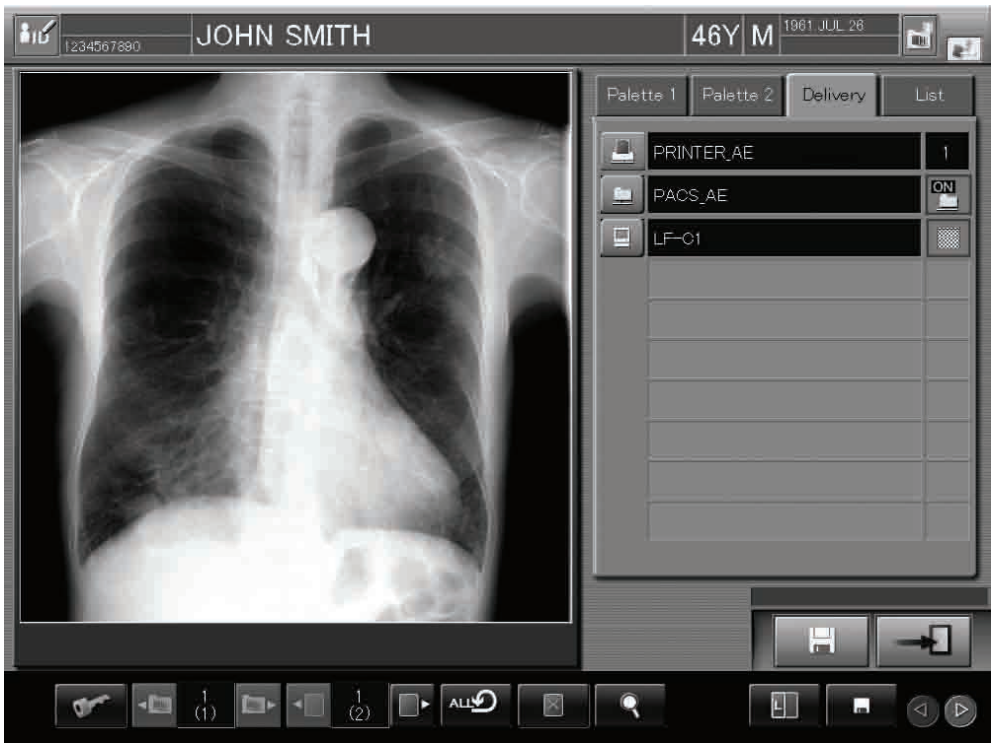
Cancel : Cancels operation.

NOTES

- FNC cannot be applied to bone and soft tissue images derived from energy subtraction processing.
- When FNC was applied, F will be output on film proving that it was actually applied.
- Frequency processing parameters to be used are different whether FNC is applied or not. When FNC is to be applied, MFP frequency processing parameters are slightly enhanced. When FNC is not to be applied, MFP frequency processing parameters same as those for when FNC is applied are used. When FNC is not to be applied, check images and re-set the applied parameters, as necessary.

4.3.2 Delivery

Select the tab of the “Delivery” folder.

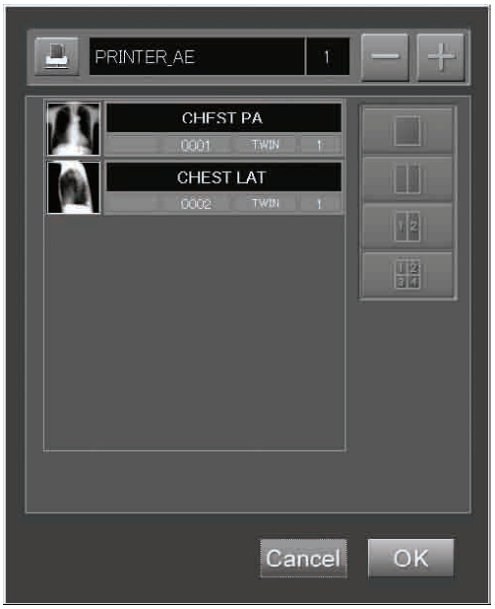


Each item is explained hereafter.

(1) Print setting

Changes the print setting. (It cannot be changed at the Image Edit Screen by an image level.)
Select .

The setting box is displayed.
Perform settings explained hereafter, and then select OK.

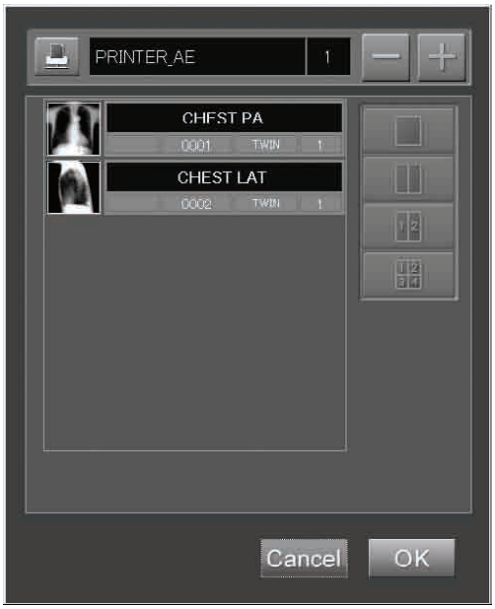


"Print setting box"

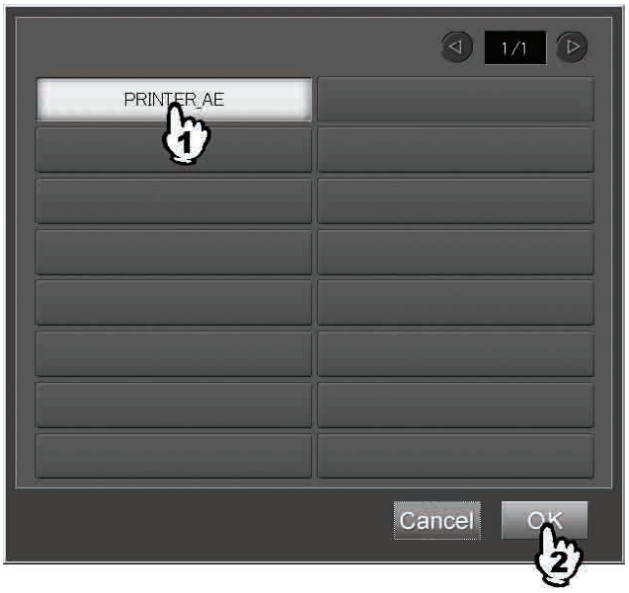
Cancel : Cancels operation.

■ Changing a printer

Select .



The selection box is displayed.
Select a printer, and then press OK.



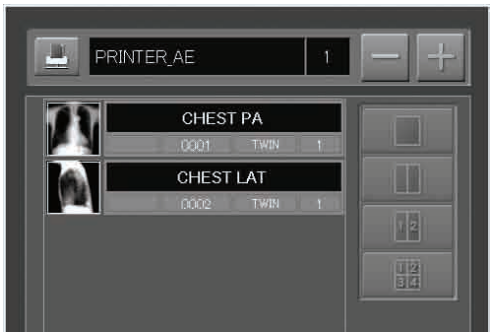
"Printer selection box"

Cancel : Cancels operation.

◁ / ▷ : Turns page.

■ Changing the number of printouts

Select or to change the number of desired printouts.



■ Changing format

Perform the following operation according to the desired format.

- For one image format, select an image (more than one image can be selected.), and then select .
- For two image format (right and left images of one same image), select image (more than one image can be selected.), and then select .
- For 2on1 format (two different images), select left image (frame position: 1) and then right image (frame position: 2). Select .
- For 4on1 format, sequentially select upper left image (frame position: 1) → upper right image (frame position: 2) → lower left image (frame position: 3) → lower right image (frame position: 4), and then select .

(2) Filing device / soft copy device setting

Changes settings for image transfer to a filing device or soft copy device.
The filing device refers to an image storage device and the soft copy device refers to an image display console, such as the workstation, at the target destination for image delivery.
Select or (Whether selecting or will result in the same.).

The “Filing device/soft copy device setting box” is displayed.
Perform settings explained hereafter, and then select OK.

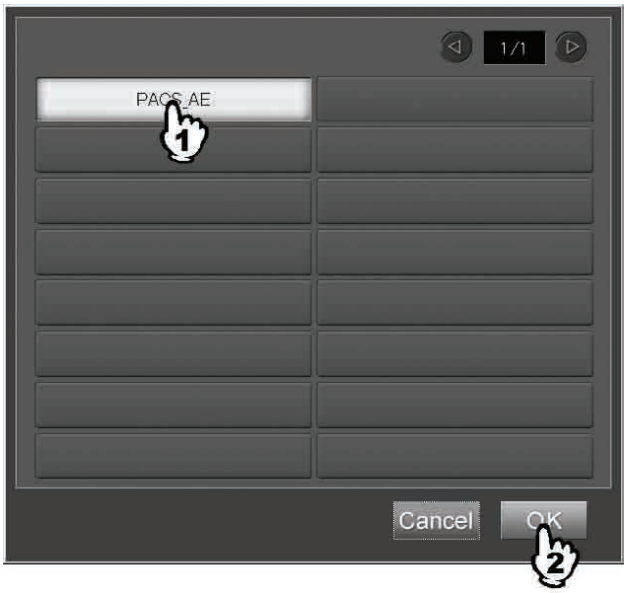
“Filing device/soft copy device setting box”

Cancel : Cancels operation.

(3) Changing a filing device

Changes image storage device at the target destination for image delivery.
Select .

The “Filing device selection box” is displayed.
Select a filing device, and then select OK.



“Filing device selection box”

Cancel : Cancels operation.

/ : Turns the page.

(4) Changing filing mode

Changes the setting for image delivery to the image storage device.
Select one of the icons.

: Does not record images to the filing device.

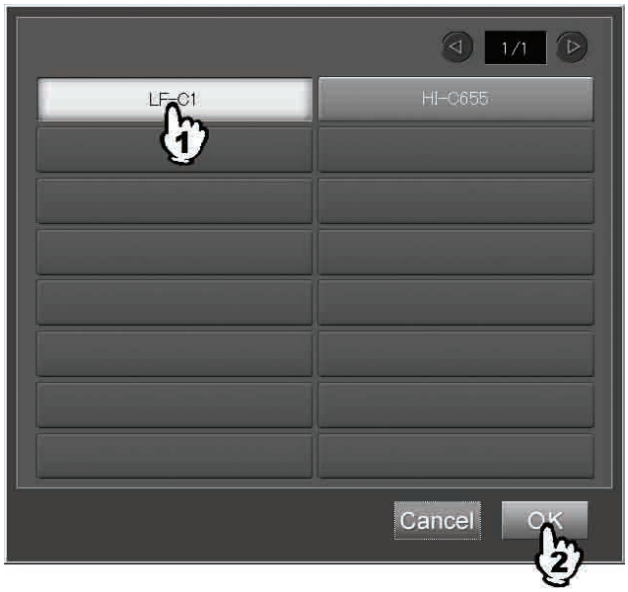
: Record images to the filing device.

: Converts HQ images to standard images and records them to the filing device.
(Normally this is not selected.)

(5) Registering additional soft copy devices

Registers additional image consoles as target destinations for image delivery.
Select .

The “Additional soft copy device selection box” is displayed.
Select a soft copy device, and then select OK.



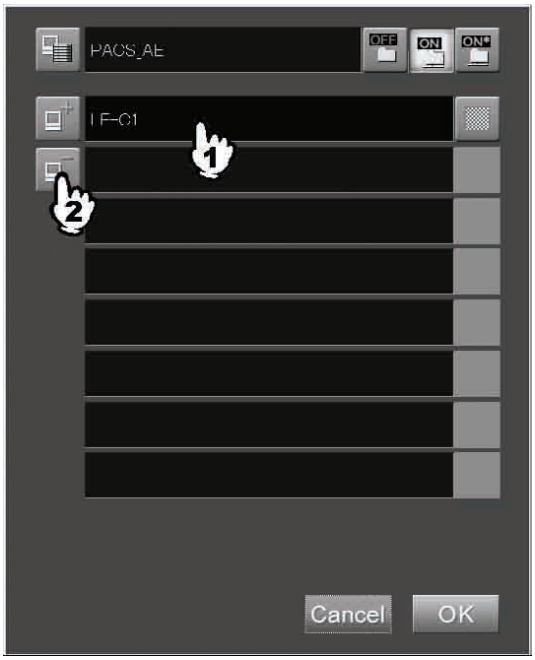
“Additional soft copy device selection box”

Cancel : Cancels operation.

◁ / ▷ : Turns the page.

(6) Deleting a soft copy device

Deletes a registered image console.
Select a soft copy device, and then press .

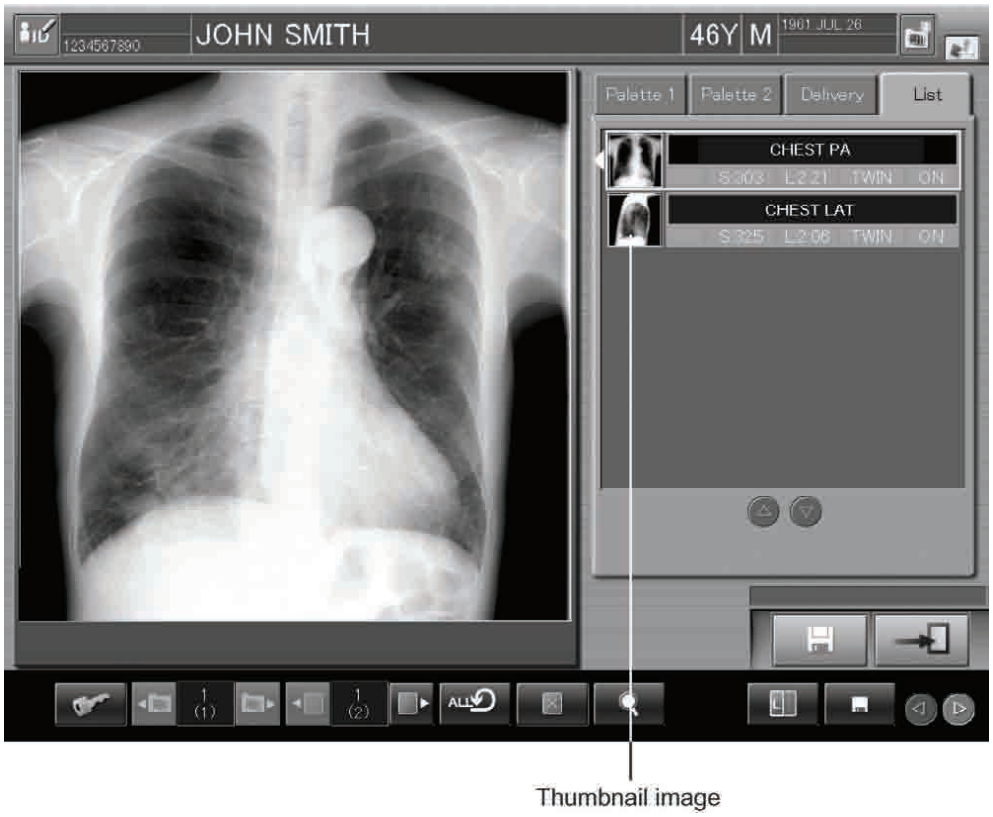


(7) Setting density of soft copy image

Sets image density to be applied when delivering images to an image console.
Select the icon in the right of the desired soft copy device display field to display (HQ) or (standard). Note that 14" x 17" and 14" x 14"-size images set to the standard density will be reduced to 67% when they are output in one-image format onto film from the equipment targeted for image transfer.

4.3.3 List

Select the “List” folder tab. (This is not displayed in the Image Edit Screen by an image level.)
In this folder, you can view image information in the study.



(1) Changing order

Move a desired menu up or down on the list to change order of selected exposure menus.

(2) Alternately switching images

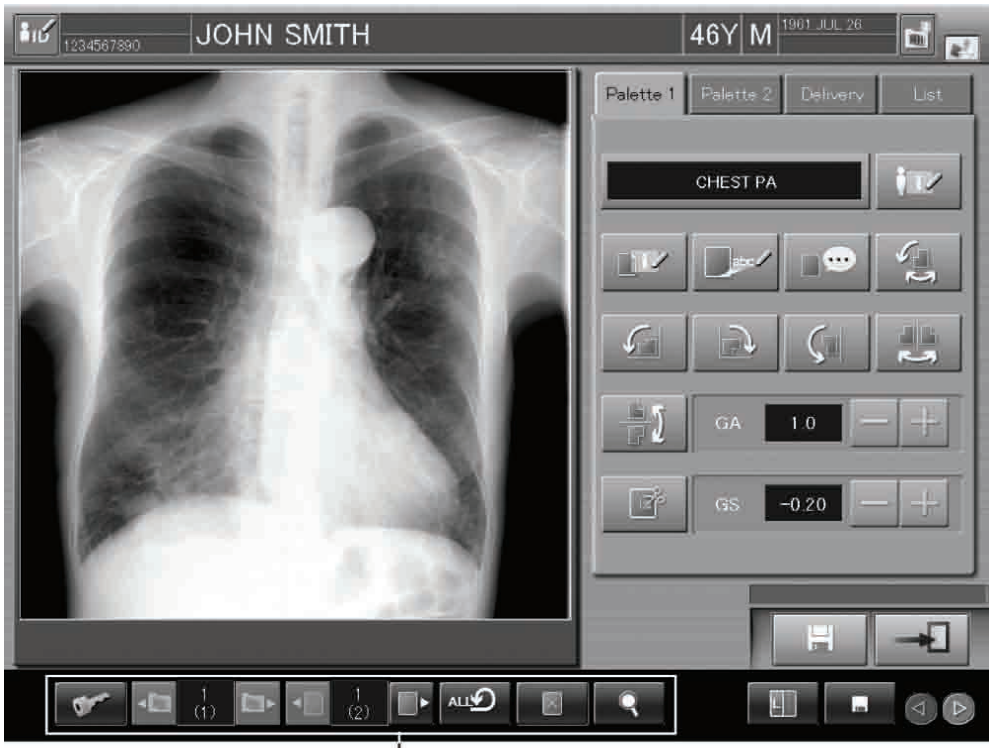
Select a thumbnail image and wait for a while. The image frame will be displayed in boldface.
Select then other thumbnail image. These two images will be switched alternately.
(This function is not available for energy subtraction images and composite images.)

(3) Changing display images

Select a thumbnail image to change a display image.

4.4 Using Utility (QA Image Controller Buttons)

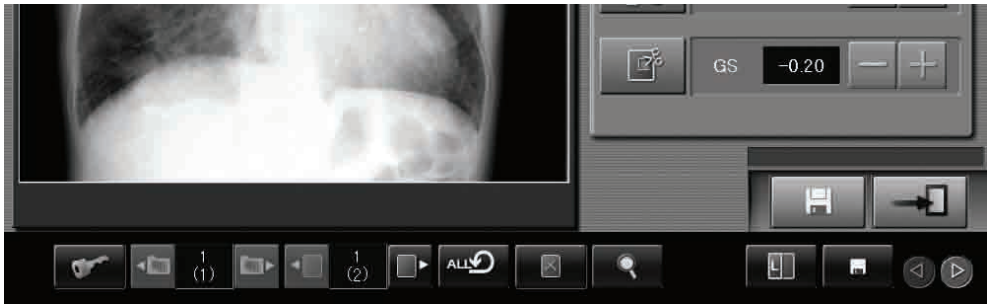
This section explains how to operate various utility functions (Magnifying display image/Changing parameters/Reprinting display image/Setting rejected image/Locking study/Saving image/Outputting DICOM files/Special Image Print/Resetting).
Perform these operations accordingly. The “Magnifying display image/Changing parameters/Reprinting image/Saving image/Resetting” are the functions available in common and can be used at the Image Edit Screen by an image level, and the icons for other functions will not be displayed.
Property of the QA image control buttons can be set at “User Utility”. Refer to [Chapter 10 CUSTOMIZING THE SCREEN DISPLAY / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].



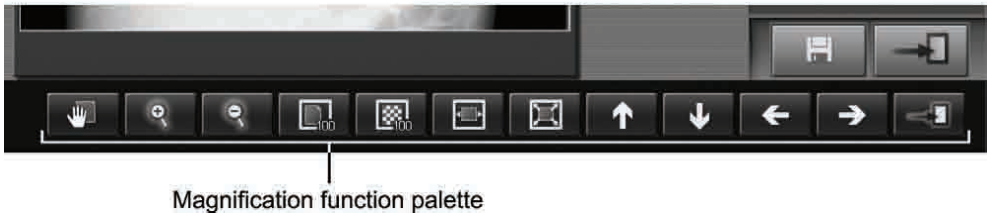
4.4.1 Magnifying Display Image

Magnifies the display image. Note, however, that the result of magnified display will not be reflected on output images. (For the CR Console Lite, the Magnifying display image is an optional function.)

Select .



The magnifying function palette is displayed.
Perform necessary processing using each tool, and then select .



■ **Activating the image move mode :**

Select . The relevant button will be activated.

Select any position on the image. If you move the position thus selected up-and-down and right-and-left, the image can be moved freely.

Selecting again will change the system to the routine mode. This mode will operate differently as follows depending on the screen status.

When either of the Palette/Delivery/List tabs has been selected, GA (contrast)/GS (density) values will be changed. You can also change the values by selecting any position on the image and moving it up-and-down (GA) or right-and-left (GS).

When trimming processing is in process, the frame used for this processing is changed. While in marker or annotation character input processing, the selected marker or annotation character position is moved. Note that no action will be taken if a setting box other than trimming processing or marker or annotation character input is displayed.

■ **Zoom-in :**
Select . Whenever is selected, the image is zoomed in with the center of the image display field determined to be its center.

■ **Zoom-out :**
Select . Whenever is selected, the image is zoomed out with the center of the image display field determined to be its center.

■ **Actual-size display :**
Select . The image is displayed in the same size as the one recorded on IP.

■ **1-to-1 pixel-size display :**
Select . The image is displayed in the condition that one pixel of the original image equals one pixel on the display.

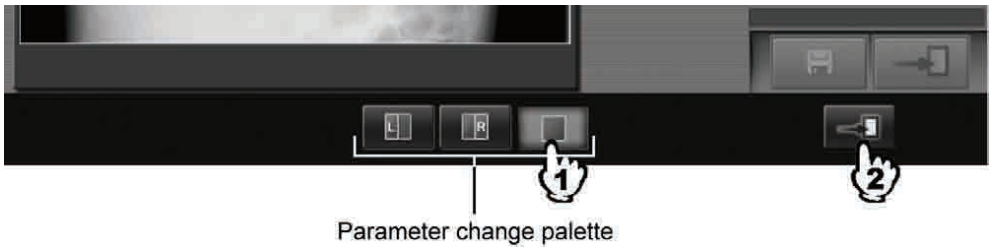
■ **Window-fit display :**
Select . The image is displayed in proper size for the image display field.

■ **Full-screen display :**
Select . The image is displayed in the full-screen size image display field. To release the full screen display option, select again.

4.4.2 Changing Parameters

Changes application of the target image processing parameter.
Select .

A parameter change palette is displayed.
Select either of the icons, and then select .



: Changes to the image processing parameter for left image in two image format.

: Changes to the image processing parameter for right image in two image format.

: Changes to the image processing parameter for one image format.

4.4.3 Reprinting Display Image

Reprints the image currently displayed. However, images handled as rejected cannot be reprinted.
Images for which no printout destinations have been set up will not be reprinted either.
Select .

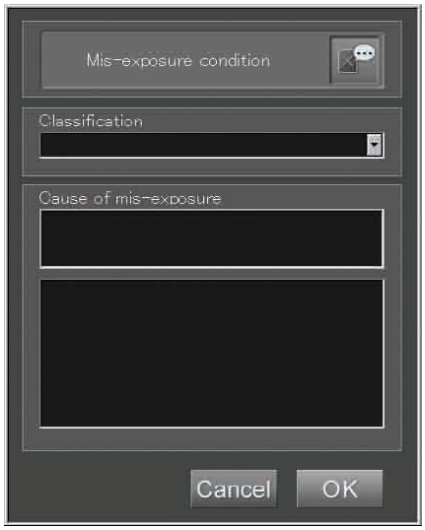
When selecting , you can also make setting so that the confirmation box is displayed.

4.4.4 Setting the rejection

Handles the image currently displayed as rejected. The image handled as rejected cannot be output to external devices.
Select . Select the icon again to release the rejected status.

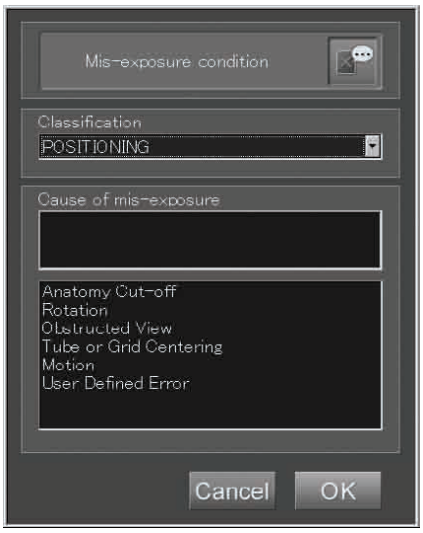
If is selected, a box where a cause of the rejection is to be entered will open depending on the setting performed at installation. When entering a cause of the rejection, is in the activated state, as shown below, which is changed alternately every time is selected.

From the drop-down list that opens, select a classification according to which the image is to be handled as rejected.



"Rejection reason input box"

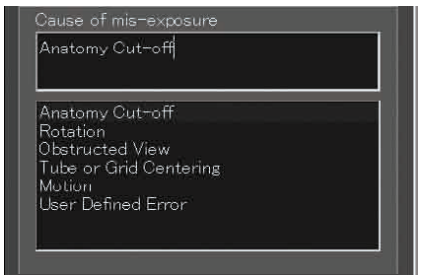
Comments pre-determined for the classification will be listed in the box below another one where a cause of the rejection is to be entered.
Select a cause for it from the displayed list.



A cause thus selected will be displayed in the relevant box.
It is also possible to input any characters in this box.
(Classification and comments can be determined using the User Utility function. For details, refer to [Chapter 3 TABLE SETTING / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].)

NOTE

When you are using Retake Analysis software (rejection analyzing software), make sure to select comments on causes of rejection from the pre-determined list. You are not allowed to input any causes of rejection from the keyboard as you like.



Input causes of the rejection selected from the pre-determined list and then select OK to close the rejection reason input box. The relevant image will thus be handled to have been rejected.
To cancel the operation to close the rejection reason input box, select Cancel. The state of rejection of the image will not be changed.
The box shown above opens also when canceling the state of rejection. remains unselected. If OK is selected while in this state, the box will be closed to cancel the rejection state.

NOTE

Whenever a change was made for the “Classification”, be sure to re-select the “Cause of rejection”.

4.4.5 Locking Studies

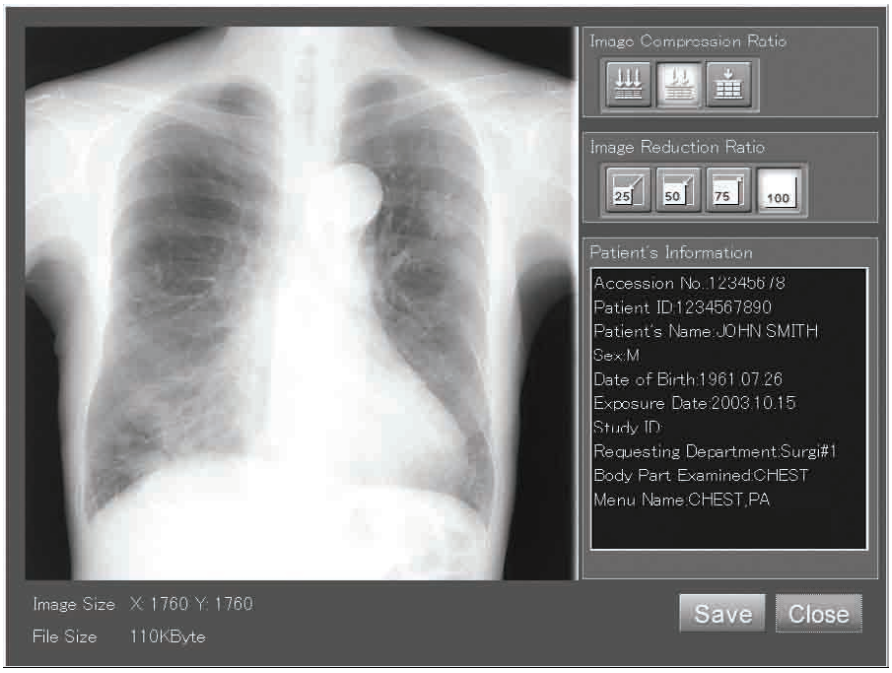
Locks the image currently displayed to prevent it from being deleted.
Select . Select the icon again to release the lock. A study to which this option is activated will be displayed with at the “Lock” item of the list (QA/Delivered/Today/All). Refer to [Chapter 5. OPERATIONS - LIST].

4.4.6 Saving Image

Performs the JPEG conversion to the currently displayed image and saves it to a desired media (floppy disks, etc.).

Select .

The image saving box is displayed.
Select any one of these icons at the “Image Compression Ratio” item to set a compression ratio applied for the image.



“Image saving box”

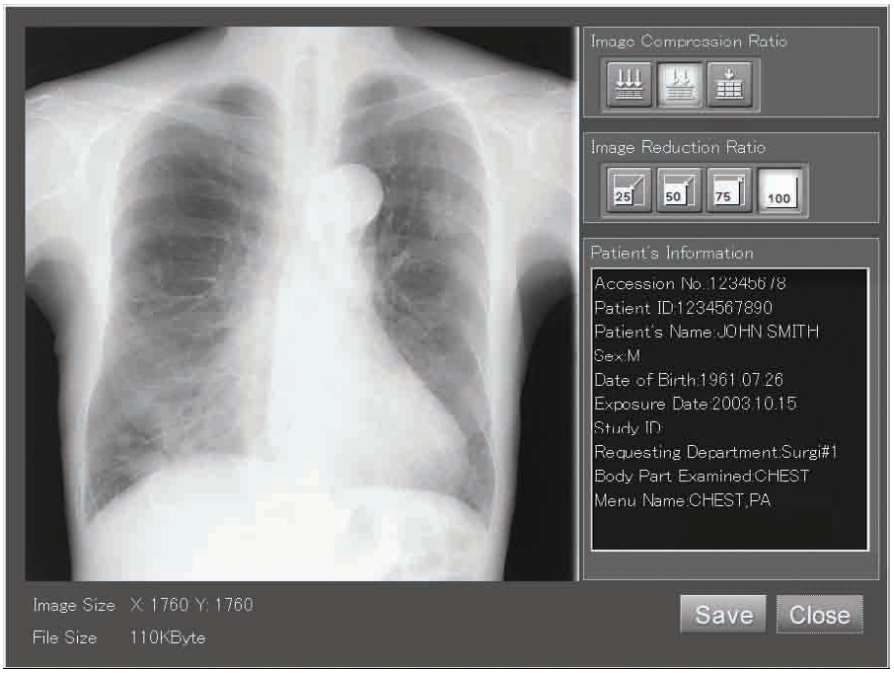
: High compression ratio (low image quality)

: Standard compression ratio (standard image quality)

: Low compression ratio (high image quality)

Cancel : Closes the box.

Select any one of these icons at the item “Image Reduction Ratio” to set a reduction ratio for the image.



: 25% reduction

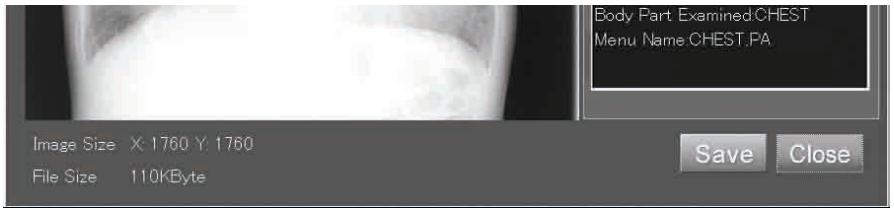
: 50% reduction

: 75% reduction

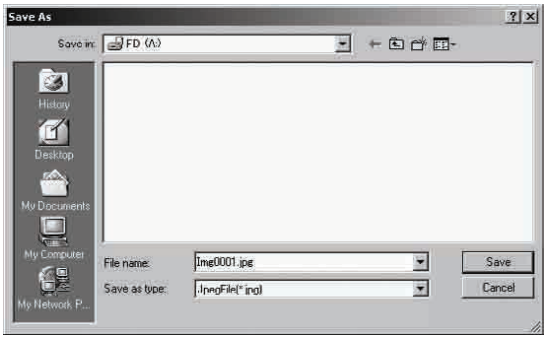
: Original size (100%)

The image in the box and the “Image Size” and “File Size” at the bottom of this screen will be displayed reflecting conditions set at the “Image Compression Ratio” and “Image Reduction Ratio” items.

Select Save.



The “Save As box” is displayed.
Set each item, and select “Save”. The image with the JPEG format (.jpg) will be saved, and the same text strings as those at the “Patient’s Information” in the image saving box will also be saved with the text format (.txt).
If the image saving box is not displayed according to the setting performed at installation, the image is saved in the preset media automatically.



Save in :
Select a directory where images are saved. Do not select the drive C of the unit since it is only for system use.

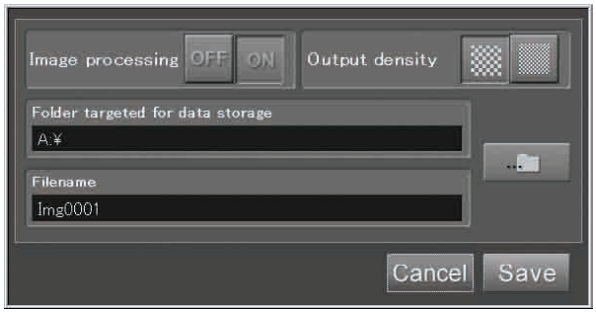
File name :
Enter any file name, otherwise images are saved with a default file name.

Saves as type :
Fixed to JPEG format. No other formats can be selected.

4.4.7 Outputting DICOM Files

Stores the currently displayed image onto any media (floppy disk, USB flash memory, etc.) in the DICOM stream format.
To use this function, however, prior setups by a designated service supplier are required.
Select DICOM.

The DICOM file output box is displayed.
When subjecting an image to be stored to image processing, select ON in the Image processing item on the window shown below.



"DICOM file output box"

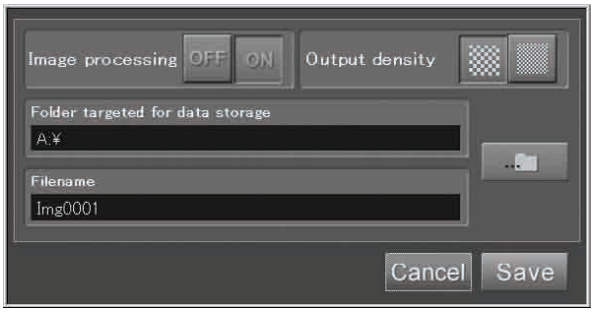
Cancel : Cancels operation.

Select either of the icons in the "Output density" item on the window shown below to determine a desired output density.

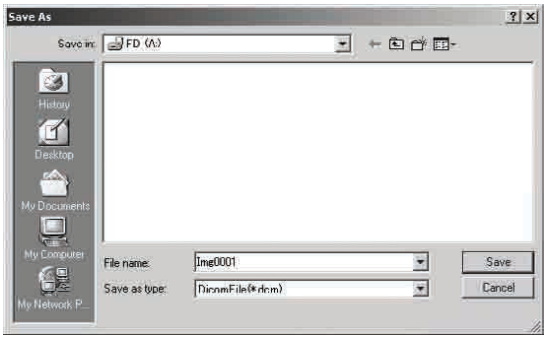
: Standard density

: High density

To change the “Folder targeted for data storage” and “Filename”, select [...].



The “Save As box” opens.
Perform necessary settings accordingly and select [Save].



Location for storage (Save in:) :

Select a directory where images are saved. Do not select drive C of the unit since it is only for system use.

Filename : Enter any file name, otherwise images are saved with a default file name.

File type (Save as type) :

Fixed to the DICOM format. No other formats can be selected.

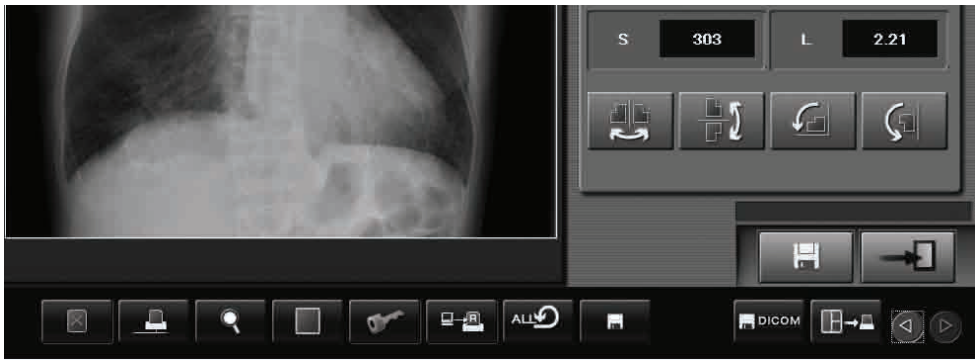
Select [Save].

The images are stored in the DICOM stream format (.dcm), and the output file information is stored at the same time in the text format (.txt). (Format used for the storage of the output file information is the same as that used for image storage in the JPEG format.)

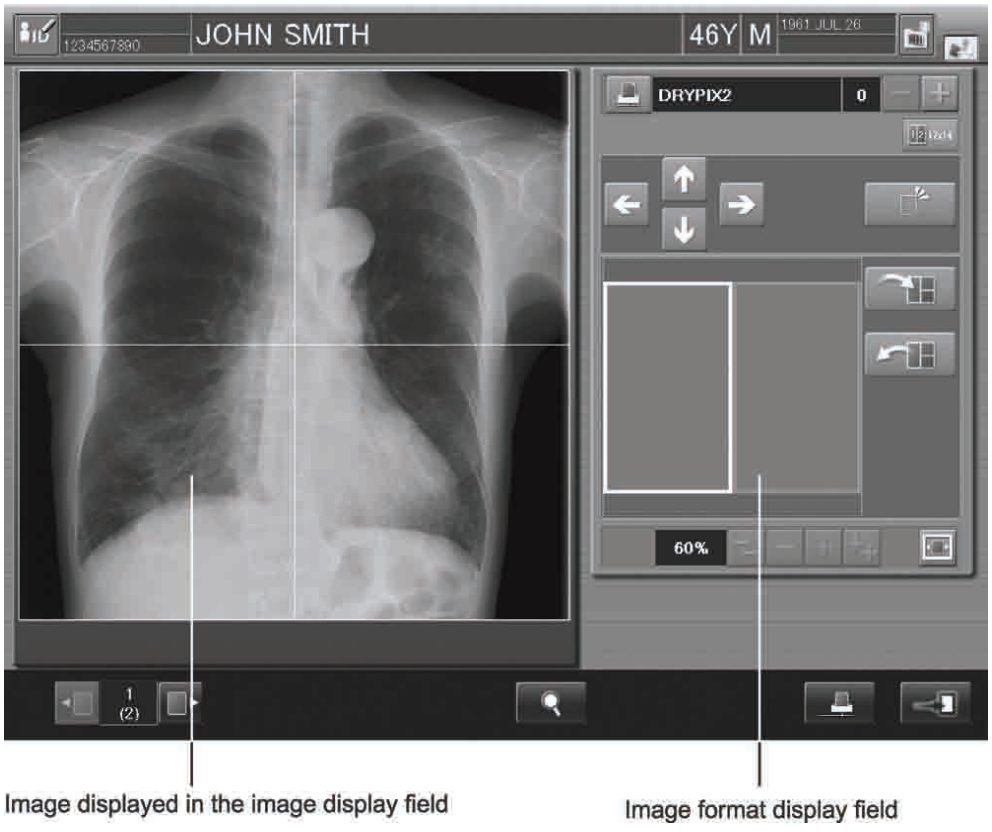
4.4.8 Special Image Print

Performs trimming of a specified range on an image, and then magnifies/reduces the area undergone trimming processing to produce a printout on film. The range undergone trimming for the purpose of magnification/reduction can be printed on the same film in one image or multiple (two to four) images by selecting a proper film format.
To make use of this function, it is required that necessary settings have been made by a designated service supplier. The following patient information items are printed on film.
Patient ID, Patient name, Date of birth, Sex, Exposure direction (AP or PA), as well as Magnification/reduction ratio.

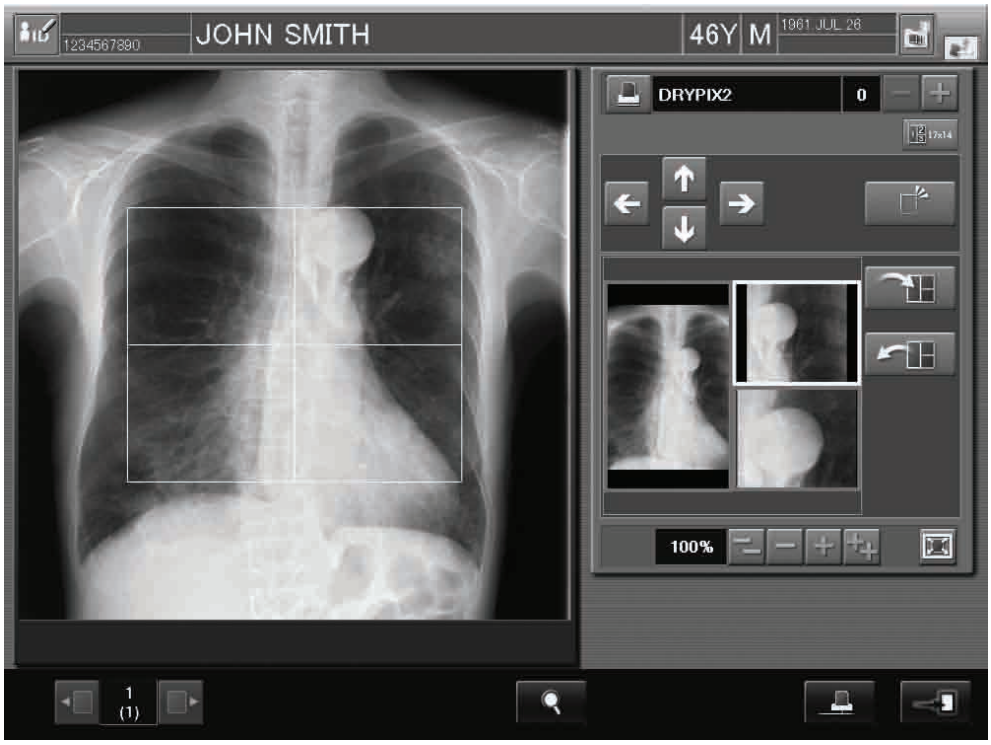
Select .



A window opens, where the setting for special image print is to be determined.



(1) Example of a specified special print



Use the tools to generate special image prints and then select .

(2) Trimming and release of the range to be magnified/reduced

To perform trimming processing of the range to be magnified/reduced, select on the displayed image a position that is to be used for the start point, and then select the end point so that a rectangle is shaped as the range for trimming.

To release trimming processing, select .

(3) Assigning a trimmed image into a film format and its release

Confirm the frame printed in bold-face in the image format display field. (The area within this frame is targeted for assigning the trimmed image.)

To change the frame where the trimmed image is to be assigned, select the other frame for the assignment.

Perform trimming of a range you want to magnify/reduce on the displayed image, and then select .

If is selected, the image appearing in the image format display field in bold-face will then be released.

(4) Specifying a magnification/reduction ratio to assign it into an image format (edit mode)

Confirm the frame printed in bold-face in the image format display field. The image will be assigned within this fame.

Select to have the magnification/reduction ratio edit mode be activated.

The trimming frame will be displayed being fit to the frame shown in bold-face. When doing so, the magnification/reduction ratio is displayed taking the size same as to that recorded on the IP to be 100%.

To release the magnification/reduction ratio edit mode, select .

: Decreases every time this key is selected the image reduction ratio in the decrement of 10% in relation to its life size, taking the center of the image display field to be the center point.

: Decreases every time this key is selected the image reduction ratio in the decrement of 1% in relation to its life size, taking the center of the image display field to be the center point.

: Increases every time this key is selected the image magnification ratio in the increment of 1% in relation to its life size, taking the center of the image display field to be the center point.

: Increases every time this key is selected the image magnification ratio in the increment of 10% in relation to its life size, taking the center of the image display field to be the center point.

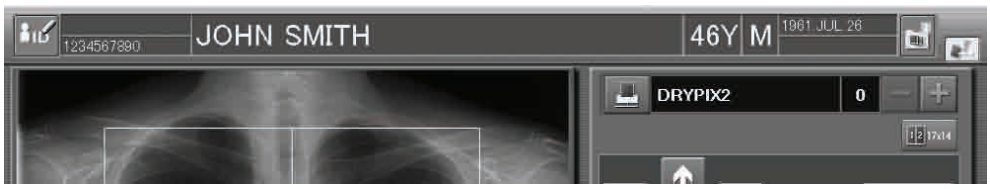
The ratio can be specified accordingly between 50% and 300%.

(5) Moving the trimming image frame

With the use of , , , or you can move the frame where the trimming image is to be displayed. You can move the trimming frame also by directly selecting it.

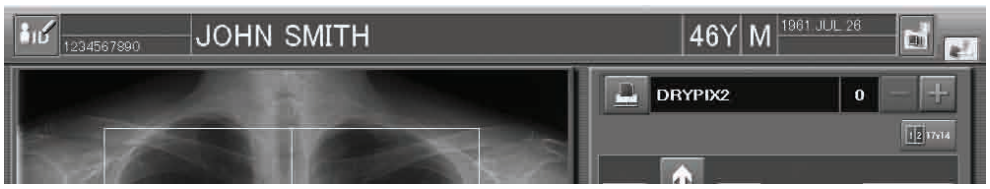
(6) Changing the number of printouts

Select or to change the number of printouts you want.



(7) Displaying a printer list

Select to display the selection box for the printer you are using for special image print.



After specifying a desired printer, select OK.

"Printer selection box"

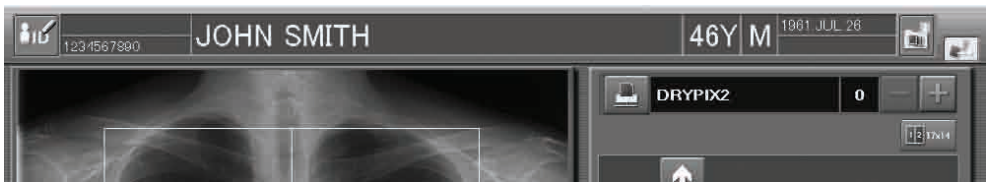
Cancel : Cancels operation.

◁ / ▷ :Turns the page.

(8) Changing format

An icon for the currently selected format is displayed.

Select to display the format selection box.



Select a desired format, and then select OK.

"Format selection box"

Cancel : Cancels operation.

14x17 : Generates a print image, for which a range for magnification or reduction has been specified, on a 14"x17"-size film.

10x14 : Generates a print image, for which a range for magnification or reduction has been specified, on a 10"x14"-size film.

17x14 : Generates a print image, for which a range for magnification or reduction has been specified, on a 17"x14"-size film.

14x10 : Generates a print image, for which a range for magnification or reduction has been specified, on a 14"x10"-size film.

17x14 :Generates two print images, for which a range for magnification or reduction has been specified, on a 17"x14"-size film.

14x10 : Generates two print images, for which a range for magnification or reduction has been specified, on a 14"x10"-size film.

17x14 : Generates three print images, for which a range for magnification or reduction has been specified, on a 17"x14"-size film.

14x10 : Generates three print images, for which a range for magnification or reduction has been specified, on a 14"x10"-size film.

14x17 : Generates four print images, for which a range for magnification or reduction has been specified, on a 14"x17"-size film.]

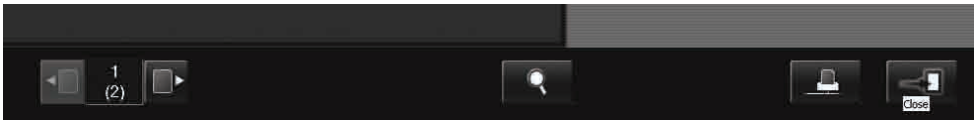
10x14 : Generates four print images, for which a range for magnification or reduction has been specified, on a 10"x14"-size film.

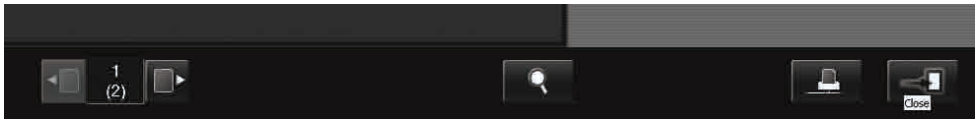
(9) Displaying the previous/next image

To display the next image, select , and select if you want to display the previous image.

(10) Image magnification/reduction

Select , and the magnification function palette is displayed.





"Magnification function palette"

: If any position selected on the image is moved up-and-down and right-and-left, with this button selected appropriately, the image can be moved as you wish.

: Whenever this button is selected, the image is zoomed in taking the center of the image display field to be the center point.

: Whenever this button is selected, the image is zoomed out taking the center of the image display field to be the center point.

: Displays an image in the same size as that recorded on the IP.

: Displays an image, where one pixel appearing on the monitor corresponds to one pixel on the source image.

: Displays an image in accordance with the size shown in the image display field.

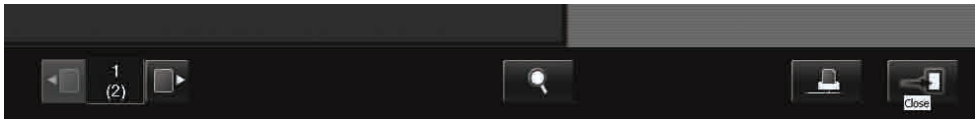
/ / / :

Moves the image shown in the image display field up-and-down and right-and-left.

: Closes the magnification function palette.

(11) Printing image

Select , and you can print a desired image.



4.5 Outputting Images

Outputs all images of the currently displayed study to the printer or filing unit. Be sure that when outputting images of the study to which the additional exposure is performed at “Delivered” list, the images only for additional exposures will be output with first operation. (With the second operation and those that follow, all images of the study will be output.)

Select (when images are already output). Note that the image output conditions will be according to the setting determined in the “Delivery Setting” folder.

It is also possible to configure so that a confirmation box appears when selecting (when images are already output).

4.6 Completing Image Edit

Completes image information edit.

Either or / is displayed depending on the maintenance setting. Perform the following operation according to the displayed button.

(1) When is displayed

When other image (study) is displayed and editing image is finished, the setting is saved automatically.

Select . The edit of image information is completed.

(2) / is displayed

: Saves edited image information.

: Ends image information editing.

To end by reflecting the setting, select and then.

If is selected without selecting , image edit processing will be ended without saving the setting data.

NOTE

While either or / is displayed, the setting will be saved automatically when either of Changing exposure menus, Alternately switching images, Reprinting image is performed. It is also possible to configure so that a confirmation box appears when the setup data is saved automatically.

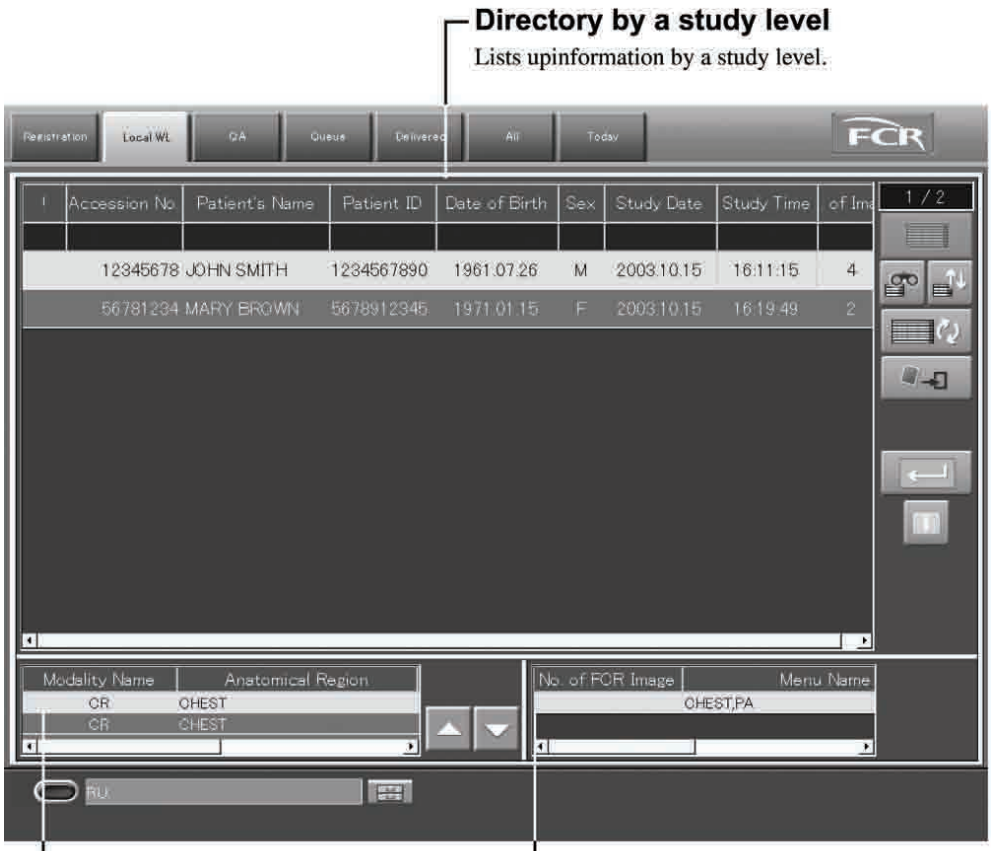
FUJI COMPUTED RADIOGRAPHY

Chapter 5

OPERATIONS LIST

5.1 List

This chapter explains various lists configured in the initial screen. These lists can be displayed by selecting a tab at the top of the screen.
Each list is configured with the directories, by a study level → by a series level → by an image level, and the directories by a series level and by an image level expand and list the information selected in the higher directory. (Only by an image level for the “Queue” list.)
The setting of the number of display studies/display-information items and display/non-display of directory by a series level can be customized for the list. For more information, see [5.2 (16) Setting Study List].

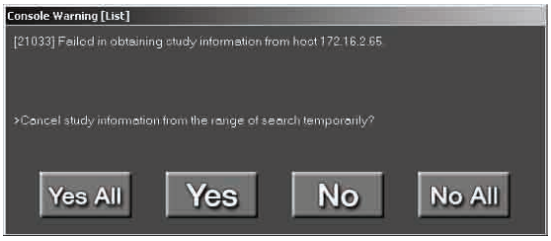

Directory by a study level
Lists upinformation by a study level.
Registration
Local WL
QA
Queue
Delivered
All
Today
FCR
Accession No.
Patient's Name
Patient ID
Date of Birth
Sex
Study Date
Study Time
1 / 2
12345678 JOHN SMITH 1234567890 1961.07.26 M 2003.10.15 16:11:15 4
56781234 MARY BROWN 5678912345 1971.01.15 F 2003.10.15 16:19:49 2
Modality Name
Anatomical Region
CR CHEST
CR CHEST
No. of FCR Image
Menu Name
CHEST,PA
RU
Directory by a series level
Lists up series information of a study selected in the directory by a study level. Directory by a series level can be determined whether to show or hide.
Directory by an image level
Lists up image information of a series selected in the directory by a series level. When the directory by a series level is not displayed, lists up image information of the study selected in the directory by a study level.

(1) Study-information sharing function

The study-information sharing function is installed to the CR Console. This function enables multiple CR Consoles to share the same study information by clustering (configuring groups) the CR Consoles connected.

The function also enables to list up not only this CR Console's study information but also other CR Console's study information in the lists described here. Utilize this function efficiently to enable to perform such various applicable operations as the specific CR Console handles the processing for study reservation/image editing/image outputting intensively and patients move to a different X-ray room in the middle of exposures (exposures in the same study can be performed with the different CR Console), etc.

When the displayed lists are switched by selecting the tabs or the lists are updated, the following confirmation box may be displayed. As it indicates that the CR Consoles set as the range of search are not active, select one of the processing described below.



"Confirmation box"

Yes All : Releases all non-active CR Consoles from the searching range.

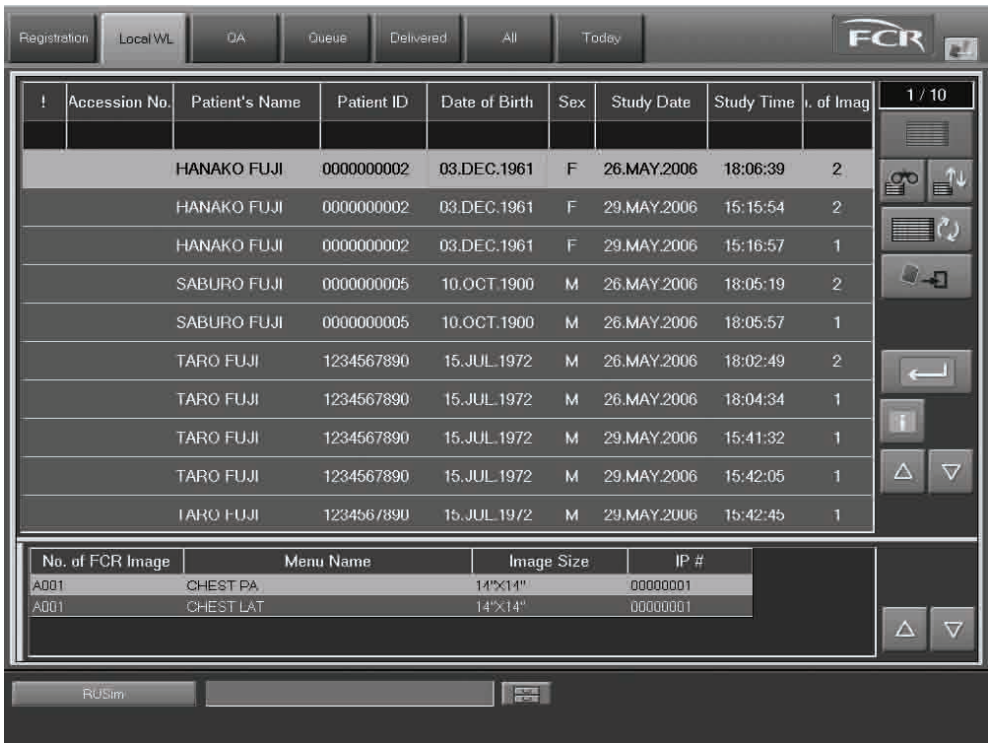
Yes : Releases the CR Consoles corresponding to the message in the box from the searching range.

No : Does not release the CR Consoles corresponding to the message in the box from the searching range.

No All : Does not release all non-active CR Consoles from the searching range.

5.1.1 Local WL

Lists up in formation of studies which have been received but not yet exposed.


Registration
Local WL
QA
Queue
Delivered
All
Today
FCR
1 / 10
! Accession No. Patient's Name Patient ID Date of Birth Sex Study Date Study Time No. of Imag
HANAKO FUJI 0000000002 03.DEC.1961 F 26.MAY.2006 18:06:39 2
HANAKO FUJI 0000000002 03.DEC.1961 F 29.MAY.2006 15:15:54 2
HANAKO FUJI 0000000002 03.DEC.1961 F 29.MAY.2006 15:16:57 1
SABURO FUJI 0000000005 10.OCT.1900 M 26.MAY.2006 18:05:19 2
SABURO FUJI 0000000005 10.OCT.1900 M 26.MAY.2006 18:05:57 1
TARO FUJI 1234567890 15.JUL.1972 M 26.MAY.2006 18:02:49 2
TARO FUJI 1234567890 15.JUL.1972 M 26.MAY.2006 18:04:34 1
TARO FUJI 1234567890 15.JUL.1972 M 29.MAY.2006 15:41:32 1
TARO FUJI 1234567890 15.JUL.1972 M 29.MAY.2006 15:42:05 1
TARO FUJI 1234567890 15.JUL.1972 M 29.MAY.2006 15:42:45 1
No. of FCR Image Menu Name Image Size IP #
A001 CHEST PA 14"X14" 00000001
A001 CHEST LAT 14"X14" 00000001
RUSim

: Releases all filtering conditions.

: Searches study information.

: Sets sorting order of the list.

: Updates the list.

: Terminates the study.

: Executes the next processing (study).

: Displays study information in detail.

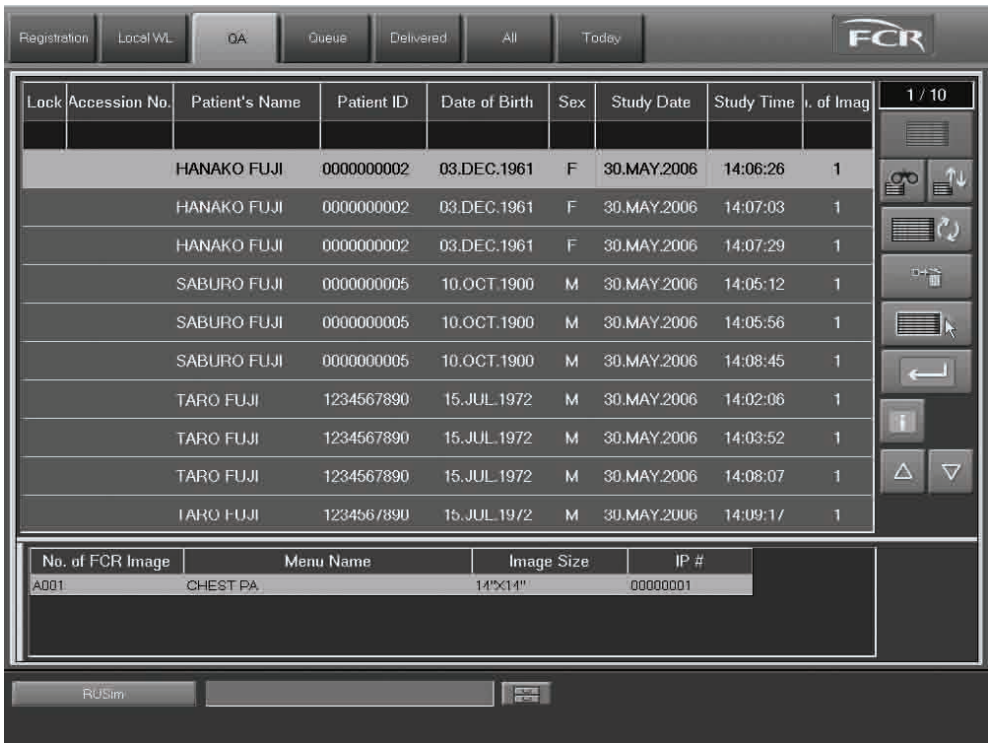
: Scrolls the list.

These icons are displayed only when there are too many information items to be displayed at once, and in other cases they are not displayed.
In case of the above illustration, they are not displayed actually.

When information items are selected, sorting is done by item.
Whenever ▲ (sorting in ascending order)/▼ (sorting in descending order) is selected, the sorting order is switched alternately.

5.1.2 QA

Lists up information of studies which have been exposed but not edited.



: Releases all filtering conditions.

: Searches study information.

: Sets sorting order of the list.

: Updates the list.

: Deletes study information.

When the user authentication has been specified according to the setting performed at installation, the user is allowed to limit the use of this function. For more information, refer to [Chapter 3 TABLE SETTING / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

: Selects all the study information.

: Executes the next processing (image edit).

: Displays study information in detail.

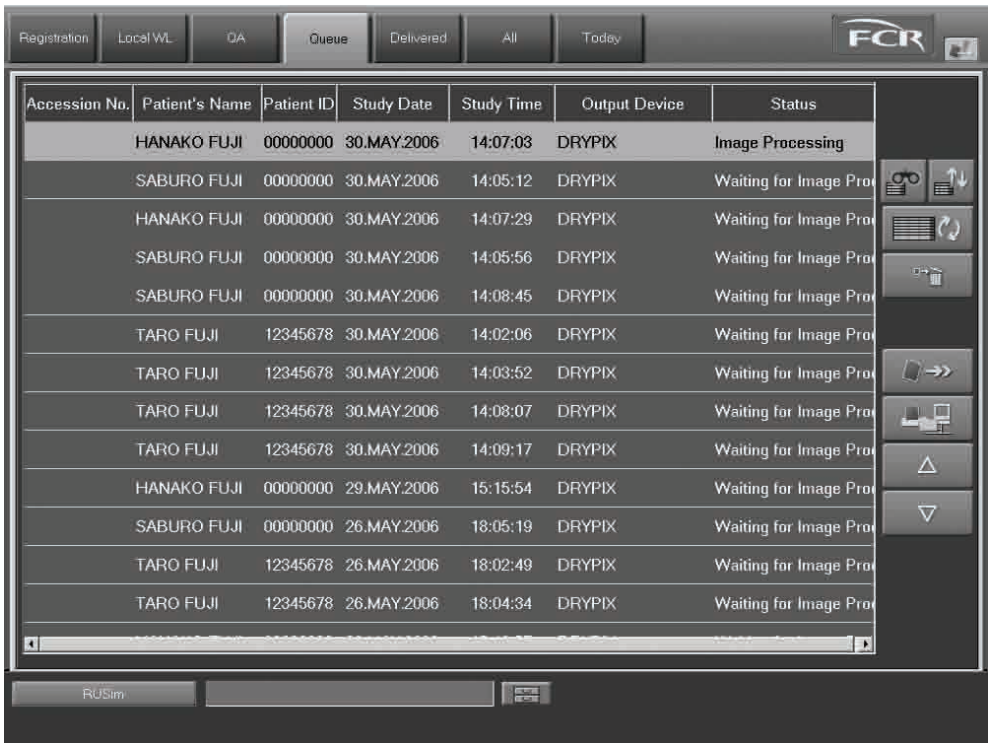
: Scrolls the list.

These icons are displayed only when there are too many information items to be displayed at once, and in other cases they are not displayed.
In case of the above illustration, they are not displayed actually.

When information items are selected, sorting is done by item.
Whenever ▲ (sorting in ascending order)/ ▼ (sorting in descending order) is selected, the sorting order is switched alternately.

5.1.3 Queue

Lists up information of images which have been exposed (QA) and edited but not output.


Registration
Local WL
QA
Queue
Delivered
All
Today
FCR
Accession No.
Patient's Name
Patient ID
Study Date
Study Time
Output Device
Status
HANAKO FUJI 00000000 30.MAY.2006 14:07:03 DRYPIX Image Processing
SABURO FUJI 00000000 30.MAY.2006 14:05:12 DRYPIX Waiting for Image Pro
HANAKO FUJI 00000000 30.MAY.2006 14:07:29 DRYPIX Waiting for Image Pro
SABURO FUJI 00000000 30.MAY.2006 14:05:56 DRYPIX Waiting for Image Pro
SABURO FUJI 00000000 30.MAY.2006 14:08:45 DRYPIX Waiting for Image Pro
TARO FUJI 12345678 30.MAY.2006 14:02:06 DRYPIX Waiting for Image Pro
TARO FUJI 12345678 30.MAY.2006 14:03:52 DRYPIX Waiting for Image Pro
TARO FUJI 12345678 30.MAY.2006 14:08:07 DRYPIX Waiting for Image Pro
TARO FUJI 12345678 30.MAY.2006 14:09:17 DRYPIX Waiting for Image Pro
HANAKO FUJI 00000000 29.MAY.2006 15:15:54 DRYPIX Waiting for Image Pro
SABURO FUJI 00000000 26.MAY.2006 18:05:19 DRYPIX Waiting for Image Pro
TARO FUJI 12345678 26.MAY.2006 18:02:49 DRYPIX Waiting for Image Pro
TARO FUJI 12345678 26.MAY.2006 18:04:34 DRYPIX Waiting for Image Pro
RUSim

: Searches image information.

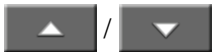
: Sets sorting order of the list.

: Updates the list.

: Deletes image information.

: Performs urgent output.

: Switches displayed information alternately.

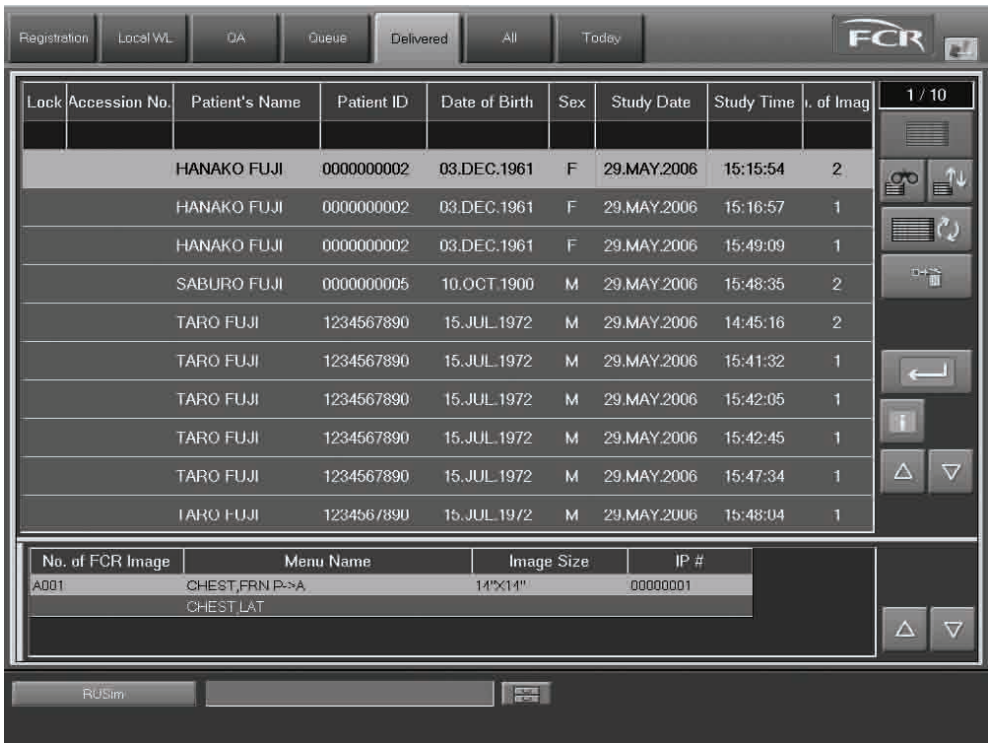
 : Scrolls the list.

These icons are displayed only when there are too many information items to be displayed at once, and in other cases they are not displayed.
In case of the above illustration, they are not displayed actually.

When information items are selected, sorting is done by item.
Whenever ▲ (sorting in ascending order)/ ▼ (sorting in descending order) is selected, the sorting order is switched alternately.

5.1.4 Delivered

Lists up information of studies which have been output.



: Releases all filtering conditions.

: Searches study information.

: Sets sorting order of the list.

: Updates the list.

: Deletes study information.

When the user authentication has been specified according to the setting performed at installation, the user is allowed to limit the use of this function.
For more information, refer to [Chapter 3 TABLE SETTING / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

: Executes the next processing (image editing or additional exposure).

: Displays study information in detail.

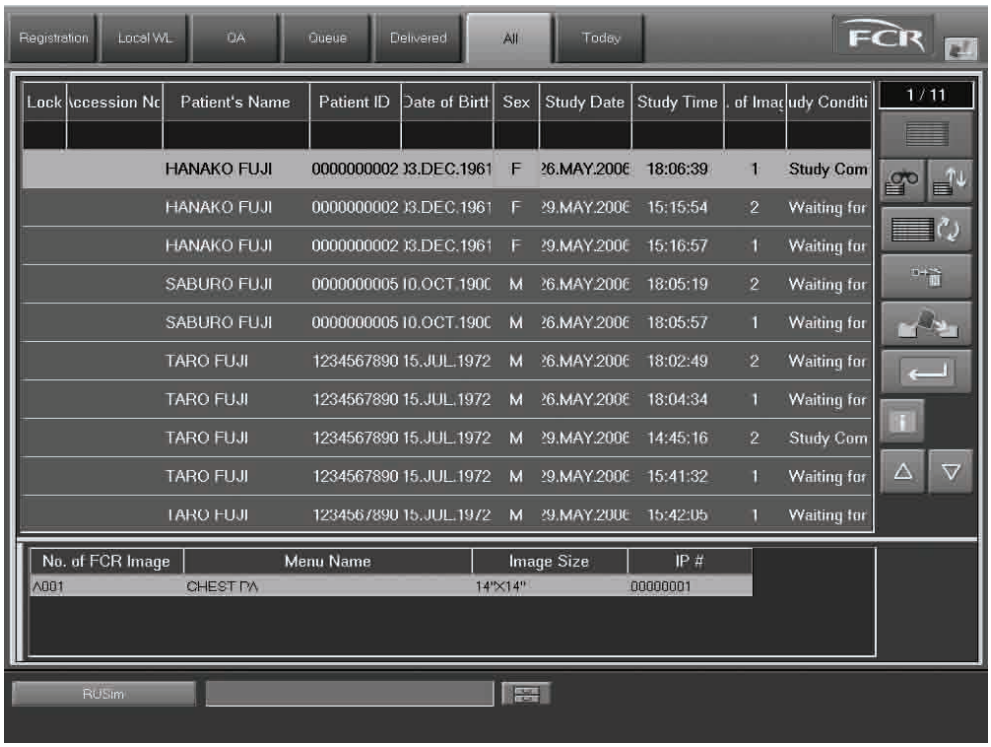
: Scrolls the list.

These icons are displayed only when there are too many information items to be displayed at once, and in other cases they are not displayed. (In case of the above illustration, they are not displayed actually.)

When information items are selected, sorting is done by item.
Whenever ▲ (sorting in ascending order)/ ▼ (sorting in descending order) is selected, the sorting order is switched alternately.

5.1.5 All

Lists up information of all the studies stored on the hard disk of the unit.


Registration
Local WL
QA
Queue
Delivered
All
Today
FCR
Lock
Accession No
Patient's Name
Patient ID
Date of Birth
Sex
Study Date
Study Time
No. of Image
Study Condition
1 / 11
HANAKO FUJI 0000000002 03.DEC.1961 F 26.MAY.2006 18:06:39 1 Study Com
HANAKO FUJI 0000000002 03.DEC.1961 F 29.MAY.2006 15:15:54 2 Waiting for
HANAKO FUJI 0000000002 03.DEC.1961 F 29.MAY.2006 15:16:57 1 Waiting for
SABURO FUJI 0000000005 10.OCT.1900 M 26.MAY.2006 18:05:19 2 Waiting for
SABURO FUJI 0000000005 10.OCT.1900 M 26.MAY.2006 18:05:57 1 Waiting for
TARO FUJI 1234567890 15.JUL.1972 M 26.MAY.2006 18:02:49 2 Waiting for
TARO FUJI 1234567890 15.JUL.1972 M 26.MAY.2006 18:04:34 1 Waiting for
TARO FUJI 1234567890 15.JUL.1972 M 29.MAY.2006 14:45:16 2 Study Com
TARO FUJI 1234567890 15.JUL.1972 M 29.MAY.2006 15:41:32 1 Waiting for
TARO FUJI 1234567890 15.JUL.1972 M 29.MAY.2006 15:42:05 1 Waiting for
No. of FCR Image
Menu Name
Image Size
IP #
A001 CHEST PA 14"X14" 00000001
RUSim

: Releases all filtering conditions.

: Searches study information.

: Sets sorting order of the list.

: Updates the list.

: Deletes study information.

When the user authentication has been specified according to the setting performed at installation, the user is allowed to limit the use of this function.
For more information, refer to [Chapter 3 TABLE SETTING / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

: Moves images to other study/series.

When the user authentication has been specified according to the setting performed at installation, the user is allowed to limit the use of this function.
For more information, refer to [Chapter 3 TABLE SETTING / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

: Executes the next processing (varies depending on the condition of the study).

: Displays study information in detail.

/ : Scrolls the list.

These icons are displayed only when there are too many information items to be displayed at once, and in other cases they are not displayed.
In case of the above illustration, they are not displayed actually.

: Displays an exposure menu used for printing 12 frames of multiple study images on a 14”x17” film.
This icon is displayed only when the 12on1 output option has been activated.

When information items are selected, sorting is done by item.
Whenever ▲ (sorting in ascending order)/ ▼ (sorting in descending order) is selected, the sorting order is switched alternately.

5.1.6 Today

Lists up information of studies which are received today.

: Releases all filtering conditions.

: Searches study information.

: Sets sorting order of the list.

: Updates the list.

: Deletes study information.

When the user authentication has been specified according to the setting performed at installation, the user is allowed to limit the use of this function.
For more information, refer to [Chapter 3 TABLE SETTING / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

: Executes the next processing (differs according to study status).

: Displays study information in detail.

: Scrolls the list.

These icons are displayed only when there are too many information items to be displayed at once, and in other cases they are not displayed.
In case of the above illustration, they are not displayed actually.

: Displays an exposure menu used for printing 12 frames of multiple study images on a 14”x17” film.

This icon is displayed only when the 12on1 output option has been activated.

When information items are selected, sorting is done by item.
Whenever ▲ (sorting in ascending order)/ ▼ (sorting in descending order) is selected, the sorting order is switched alternately.

5.2 List Operation

Described herein are operations of the lists.

(1) Filtering

Filters study information to be listed up. The target for filtering is the study information in all CR Consoles set as the range of search. This function is valid for each list of “Local WL” / “QA” / “Delivered” / “All” / “Today”. For more information, see [(16) Setting Study List ■ Range of search].

Input keywords in the input field of the information items, and then press Enter key. The study information that corresponds to the keywords will be listed up.

■ For the filtering operation

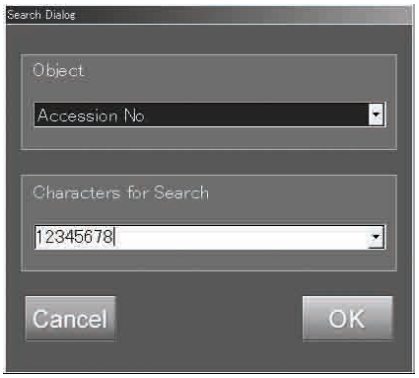
- Upper case/lower case is not distinguished for keywords.
- The study information listed up is forward-corresponded to the keywords input in “Patient’s Name” / “Study Menu Name” and completely corresponded to the keywords input in other keyword items.
- Keywords cannot be input for “ ! ” / “Lock” / “Study Condition”.
- If keywords are input in multiple items, the study information is filtered with AND conditions.
- The card reader (option) can be used to input keywords for “Patient ID”.
- The barcode reader (option) can be used to input keywords for “Patient ID” or “Accession No.”. (The usable item is determined by setting performed at the time of installation.)
- If only one study is found for the corresponding study information by filtering using the card reader or barcode reader, the CR Console selects the study automatically and transits to next processing.
- When the filtering is performed using the card reader or barcode reader immediately after lists are switched alternately and so on, the existing study information may not be listed up. If this happens, perform the same filtering again.
- The keywords once input will be kept unless they are deleted. To release all filtering conditions, select . It is also possible to release them automatically when a study list is re-displayed after the study in the filtered study list is executed and finished.

(2) Search

Searches (selects) specific information from the list. The target will be the information currently displayed in the list. This function is valid for all the lists.

When is selected, a dialog box is displayed.

Select the information item to be searched, and enter the character string to be searched, (if the character string has been entered before, it can be selected from the drop down list.), and then select OK.



"Search dialog box"

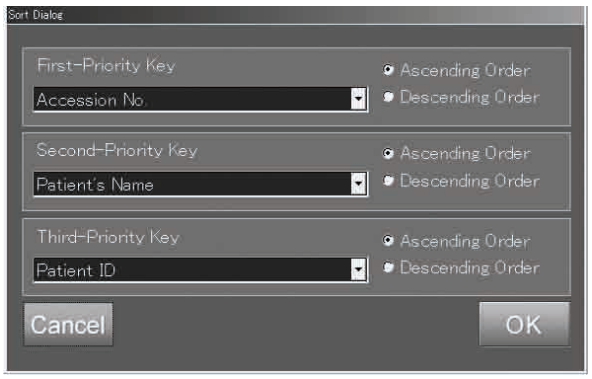
Cancel : Cancels operation.

(3) Setting the Sorting Order

Sets order for sorting the list. This function is valid for all the lists.

When is selected, a dialogue box is displayed.

Selects the priority of the sort keys and their orders, and then select OK.

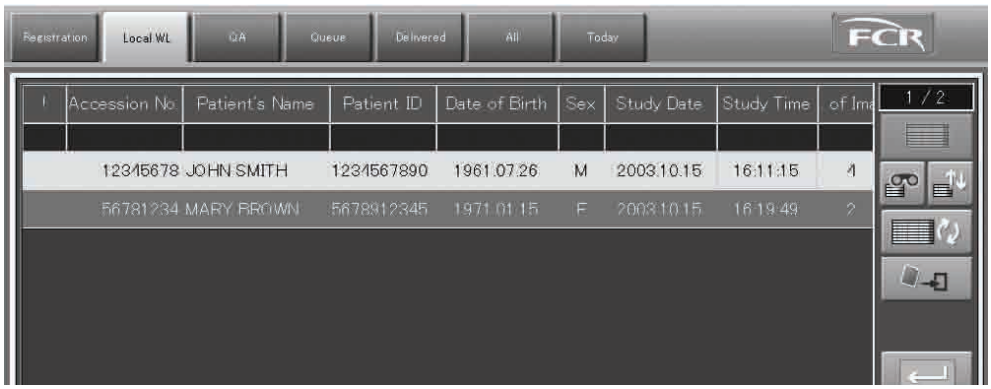


"Sorting dialog box"

Cancel : Cancels operation.

(4) Updating the List

Updates the list and lists the latest information. This function is valid for all the lists.
Select .

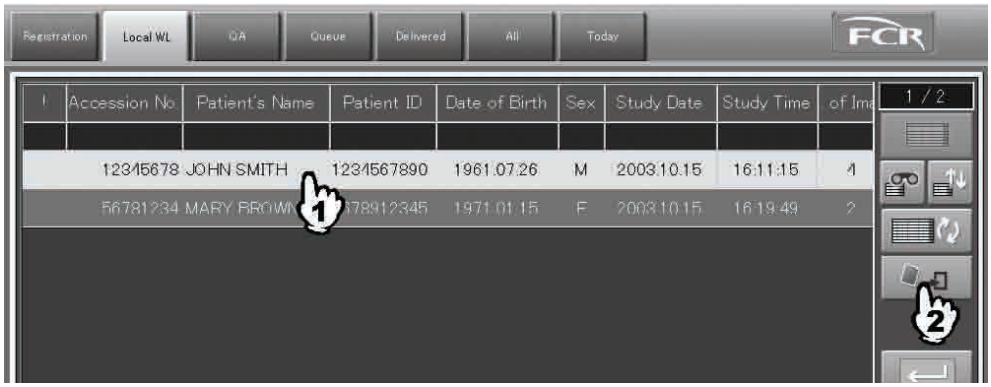


(5) Terminating Studies

Terminates the study for which the exposure has not been completed. This function is valid for "Local WL".
By performing this operation, the study is terminated with the preset condition. This terminating condition can be set with the User Utility. For more information, refer to [Chapter 4 PROPERTY SETTING / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

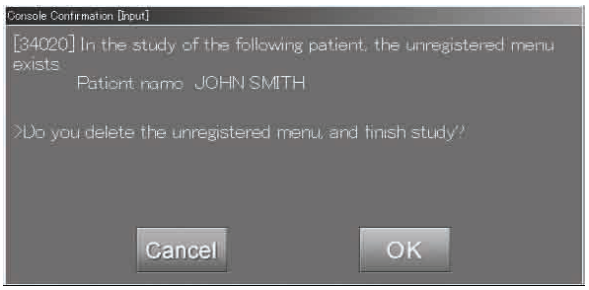
Select after selecting the study. To make selection of studies, selecting them while holding down the Ctrl key or Shift key enables you to specify a multiple-study range.

If the exposure menus to which the IP registration has been done but before the image reading still remain in the study, the study cannot be terminated.



If the exposure menus before the IP registration still remain in the study, the following confirmation box is displayed.

Select OK. When all exposure menus of the study are before the IP registration, the information for the study will be deleted.


Console Confirmation [Input]
[34020] In the study of the following patient, the unregistered menu exists
Patient name JOHN SMITH
>Do you delete the unregistered menu, and finish study?
Cancel
OK

"Confirmation box"

Cancel : Cancels operation.

(6) Deletion

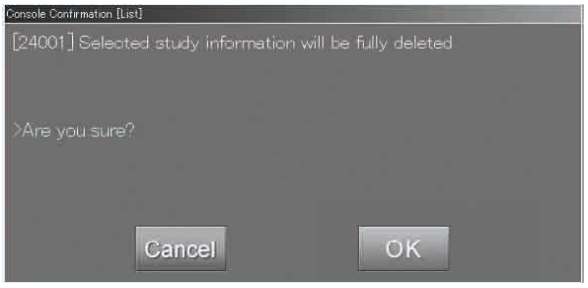
Deletes information as follows. This function is valid for the lists of "QA" / "Queue" / "Delivered" / "All" / "Today". When the user authentication has been specified according to the setting performed at installation, the user is allowed to limit the use of this function. For more information, refer to [Chapter 3 TABLE SETTING / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

Select information in the highest directory (by an image level for "Queue" list, by a study level for all the other lists), and then select .

The information displayed with (lock) cannot be deleted.

A confirmation box is displayed.

Select OK.



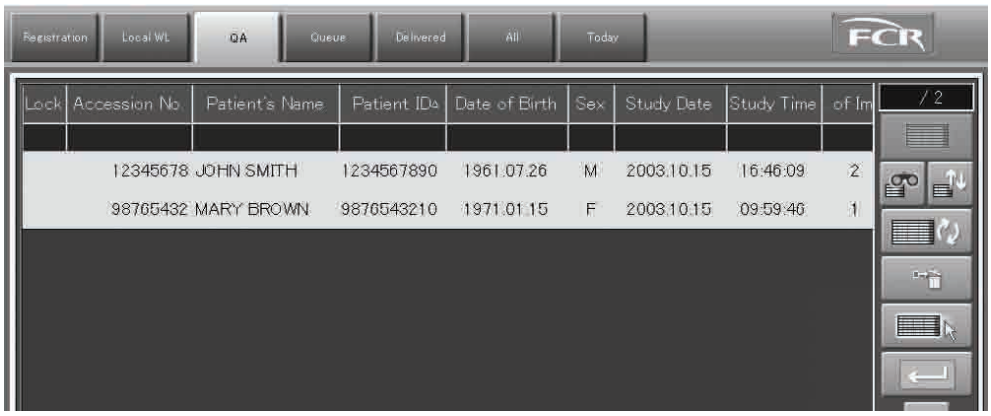
"Confirmation box"

Cancel : Cancels operation.

(7) Select All

Selects all the study information. This function is valid for the “QA” list.

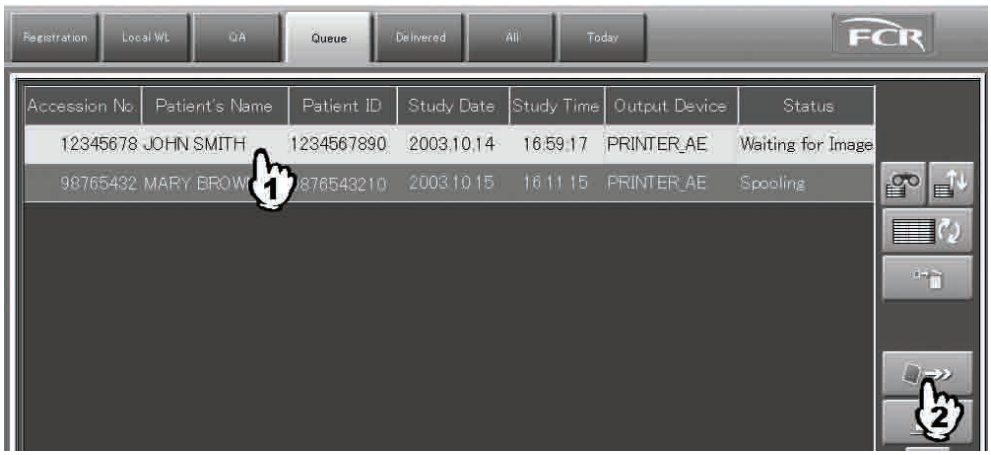
Select .



(8) Urgent Output

Performs output with priority. This function is valid for the “Queue” list.

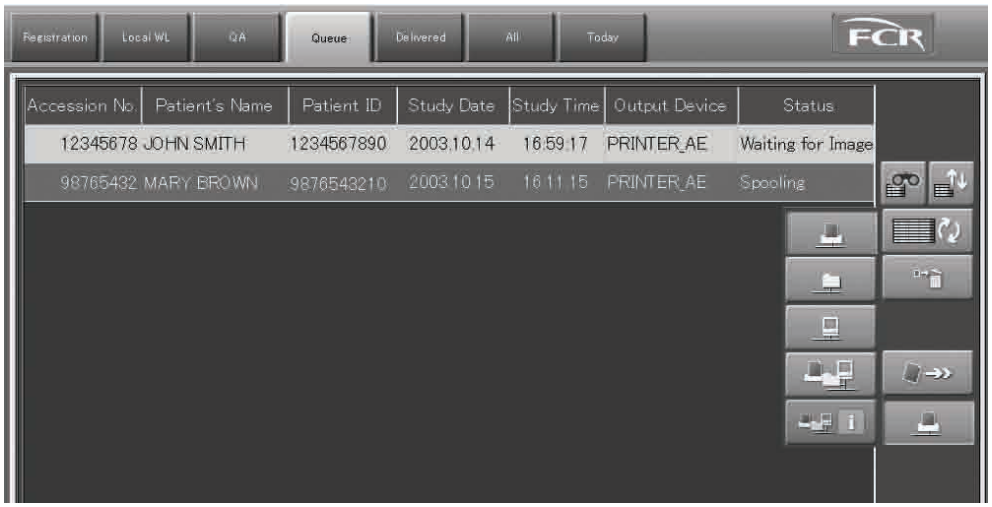
Select an image, and select .



(9) Switching Display Information Alternately

Alternately switches the display information of the list. This function is valid for the "Queue" list.

When (or any one of five icons shown below) is selected, five icons are displayed. Select one of the icons.



: Lists image information that is waiting for film output.

: Lists image information that is waiting for filing output.

: Lists image information that is waiting for soft copy output (image transfer to workstations, etc.).

: Lists all the image information that is waiting for output.

: Lists statuses of devices that are the destinations of the output.

(10) Moving Images

Moves images to other study or series. This function is valid for "All" list.

When the user authentication has been specified according to the setting performed at installation, the user is allowed to limit the use of this function. For more information, refer to [Chapter 3 TABLE SETTING / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

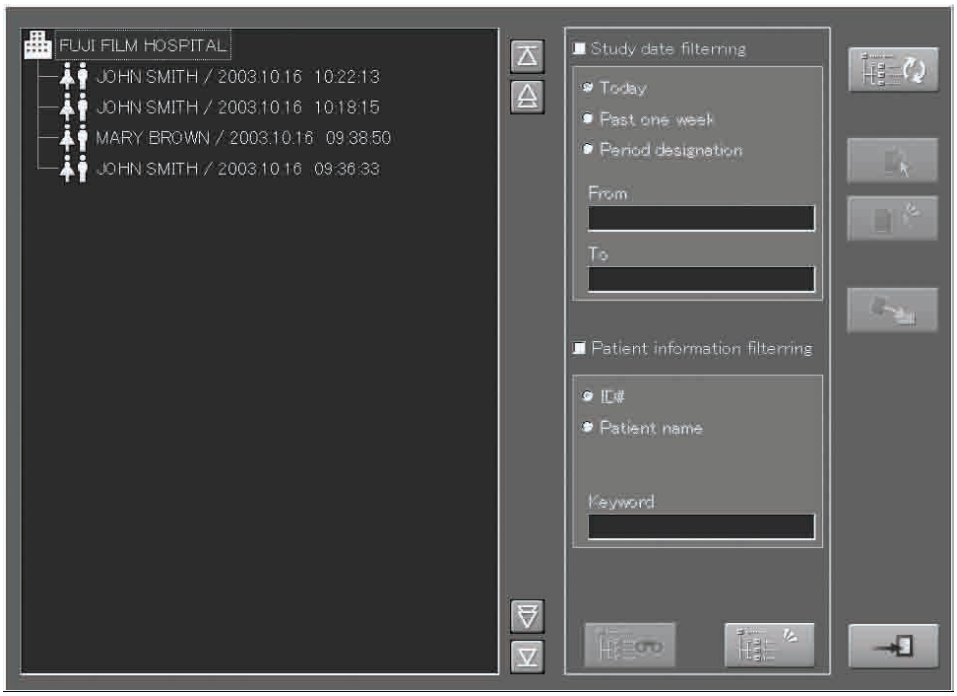
As display/non-display of the following icons can be set with the User Utility, refer to [Chapter 10 CUSTOMIZING THE SCREEN DIPLAY / CR Console OPERATION MANUAL - THE USER UTILITY OPERATIONS].

NOTE

Performing the operation using this function will rewrite the important information for patient and/or study. Be careful to perform this operation and we recommend that you record operation details accordingly. Fuji Film shall not be liable for any matters resulting from this function.

Select .

The image move box is displayed.



: Filters the study list.

: Releases the filtering for the study list.

: Updates the study list.

: Specifies the image to be moved.

: Releases the specification of the image to be moved.

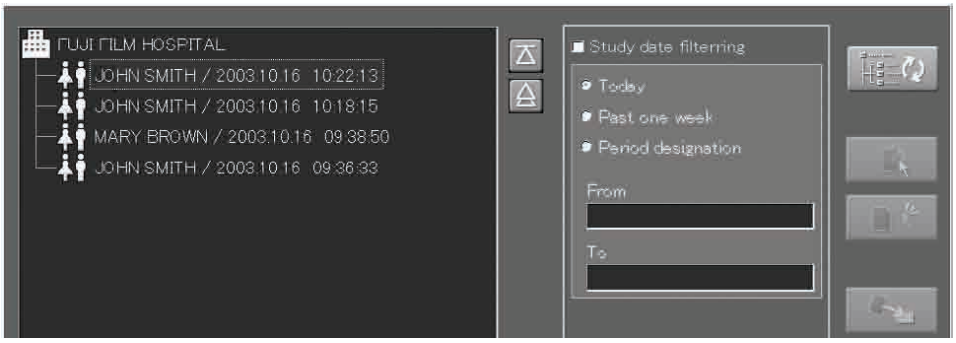
: Moves the specified image.

: Completes the image move and the box is closed.

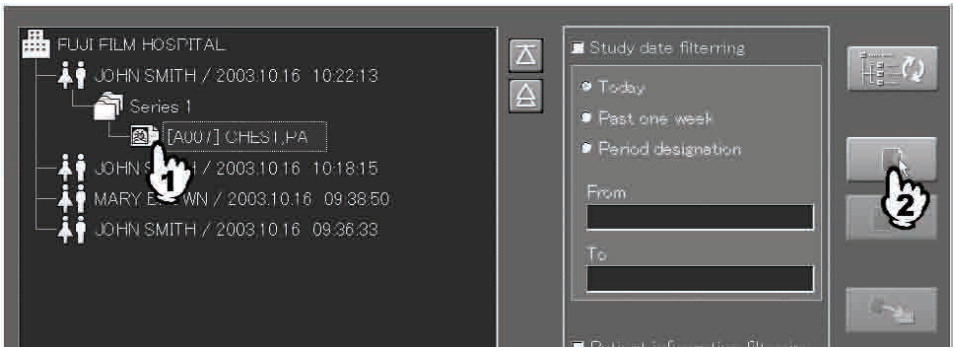
: Scrolls the study list.

: Scrolls to the beginning or the end of the study list.

Select twice the study to which the moving image is registered to expand the study directory.
Selecting it once cannot expand the directory.
The studies to be listed up in the study list can be filtered/updated.

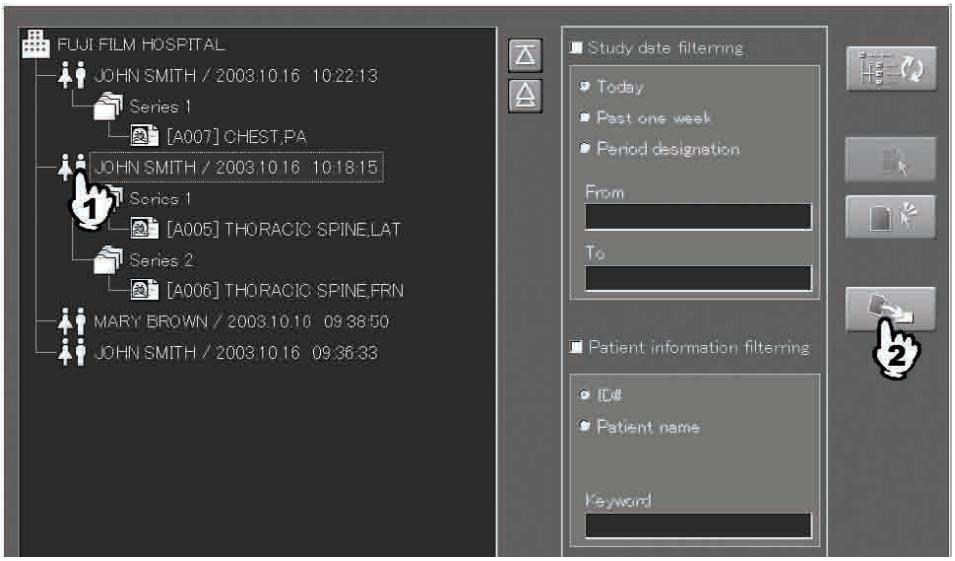


Select the image to be moved, and then select . The image to be moved is specified.
To release the specification of the image, select .
The unread image ([****] display) or the image in “Queue” list cannot be specified.



Same as with the previous procedure, select the moving destination (institution/series/image), and then select .

The image cannot be moved to the study that has the unread image ([****] display) or the image in "Queue" list. The image before delivery (in "QA" list) cannot be moved to the study delivered already.



When the institution is selected : An image will be moved as a new study.

When the study is selected : An image will be moved as a new series to the selected study.

When the series is selected : An image will be moved to the selected series.

When the image is selected : An image will be moved to the series that the selected image is registered.

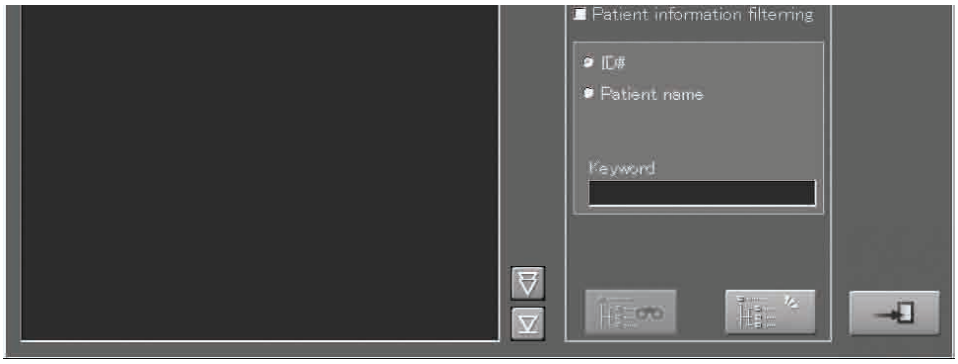
The following confirmation box is displayed.

Select OK.

"Confirmation box"

Cancel : Cancels operation.

After completing image move processing, select .



NOTE

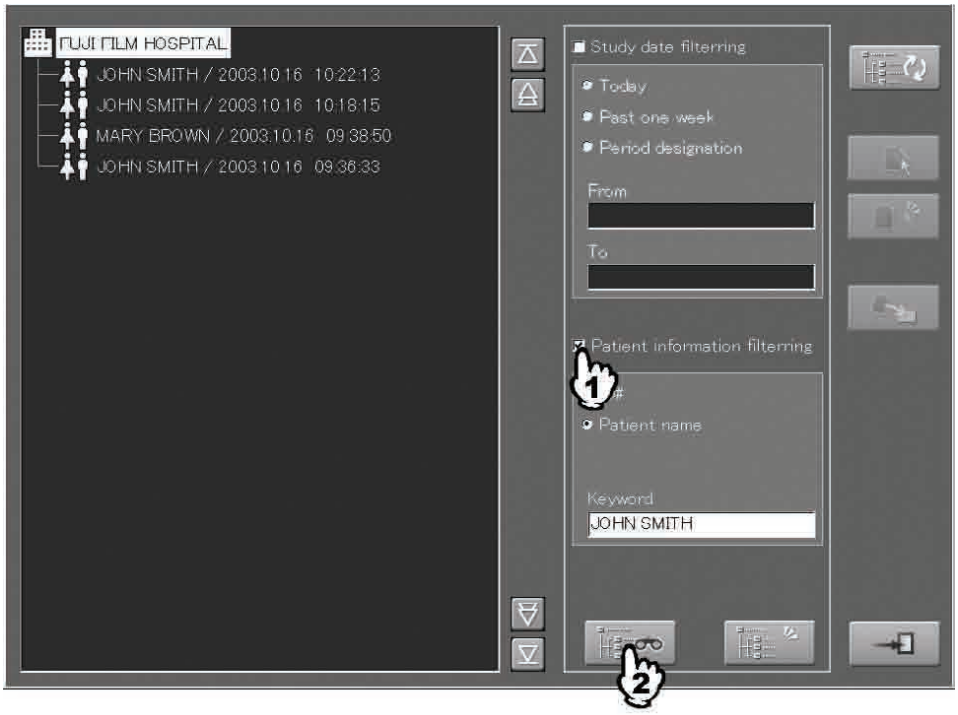
When image move processing is executed, the film output format for all images in the study both in the sender and the receiver will be the default format (one-image or right/left two-image format) of exposure menus.

(11) Filtering/update of the study list

Filters/updates the studies to be listed up in the study list.

■ Filtering

Filters the studies to be listed up in the study list.
Select/input the condition of filtering (study date/patient information), and then .
The study list will be filtered. To release filtering, select .



■ **Study date filtering**

Select one of “Today”/“Past one week”/“Period designation”. When “Period designation” is selected, input dates for the period (beginning date and ending date). The input format for dates differs depending on the setting made when the equipment is installed.

Example > Studies only on January 1, 2002 → From 2002.01.01 / To 2002.01.01
> Studies after January 1, 2002 → From 2002.01.01 / To blank
> Studies before January 1, 2002 → From blank / To 2002.01.01

■ **Patient information filtering**

Select one of “ID#”/“Patient name”, and input its condition in “keyword” field.
When “Patient name” is selected, the character string to be input need not to equal to actual character string completely. So, a fuzzy filtering is valid in this case.

Example > To display all patients whose family name is “Jones” → Input only “Jones”.

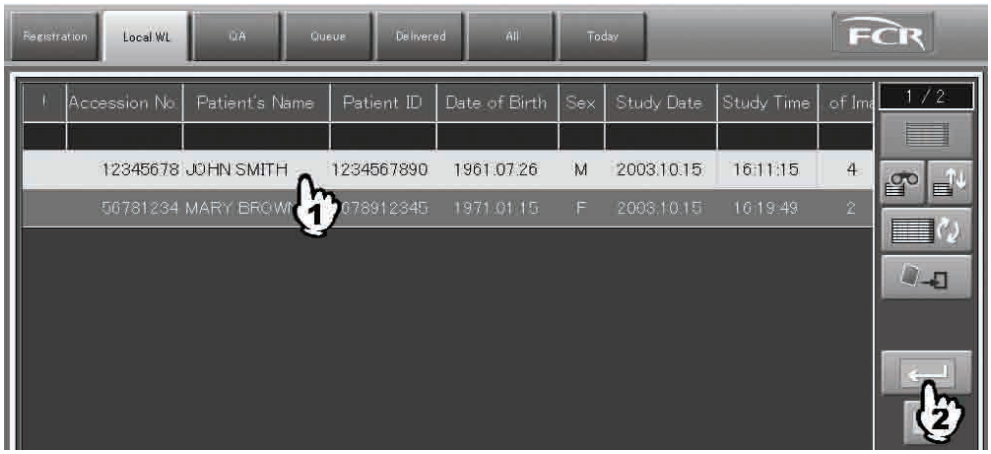
■ **Update**

Updates the information to the latest for the studies to be listed up in the study list .
Select . (When the filtering display is set, studies will be displayed according to its condition.)

(12) Execution of Next Processing

Executes next processing. This function is valid for the lists, “Local WL”, “QA”, “Delivered”, “All”, and “Today”.

Select a study in the directory by a study level, and then select .



For the “Delivered” list, the additional exposure can be performed to the selected study by selecting while holding down the Shift key. About the additional exposure for the delivered studies, refer to [3.5.2 Additional Exposure].

■ Selecting multiple studies and starting the next processing at the same time (option)

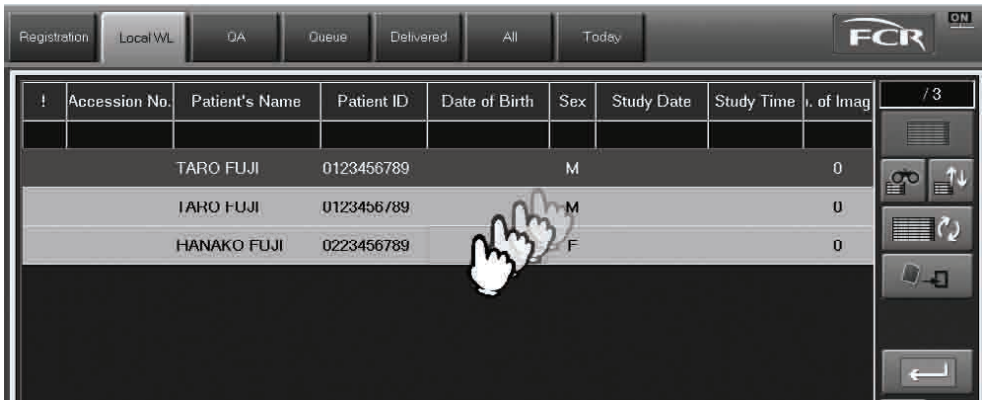
For the “QA” list, QA processing can be performed if you select multiple studies by the operation below.

For the “Local WL” list, the intended study can be performed if you select multiple studies by the operation below.

For the “All” and “Today” lists, multiple studies can be selected and then output only when the function for “Printing 12 frames of multiple study images on one film” has been activated.

- Selecting ranges for multiple studies at the press of the Shift key
- Selecting ranges for multiple studies by touching those studies on the touch panel
- Selecting ranges for multiple studies at the left-click of those studies

For requirements applied to starting multiple studies at the same time, see [3.3.1 (2) ■ When starting multiple studies at the same time (option)].



NOTE

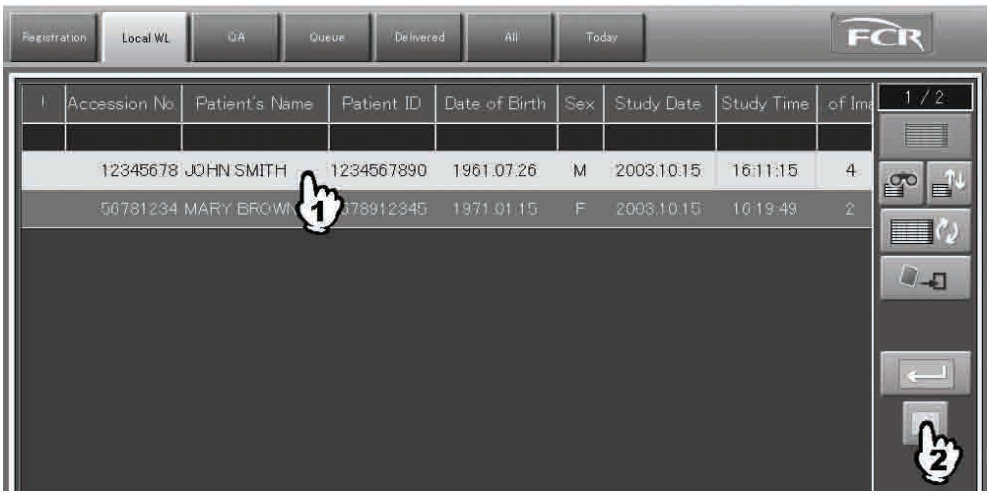
When a multiple number of studies are selected on those lists, an icon for the function that is disabled for the selected studies cannot be selected.
If this is the case, select any one of the studies of those lists to release the selected range and the re-select a study accordingly.

(13) Study Information List

With this list, you can view detailed study information. This function is valid for the lists such as "Local WL", "QA", "Delivered", "All" and "Today".

After selecting a study in the directory by a study level, select .

For more information, see [2.5 Study Information List].

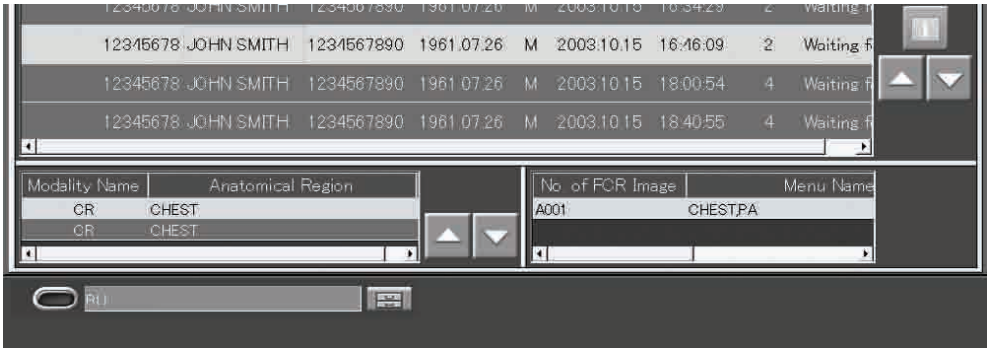


(14) Scroll

Scrolls the list. This function is valid for all the lists.

Select or .

These icons are displayed only when all the information cannot be displayed at a time.
In other cases, they will not be displayed.

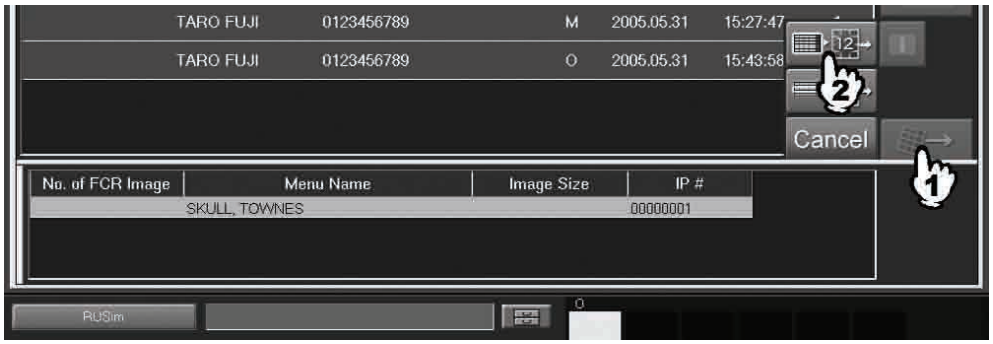


(15) Printing 12 Frames of Multiple Study Images on One Film

You can print 12 frames of multiple study images on a 14”x17” film, as follows. This function is enabled by specifying whether to print all completed studies or to print only studies selected from among completed studies. This function is available for the “All” and “Today” lists.

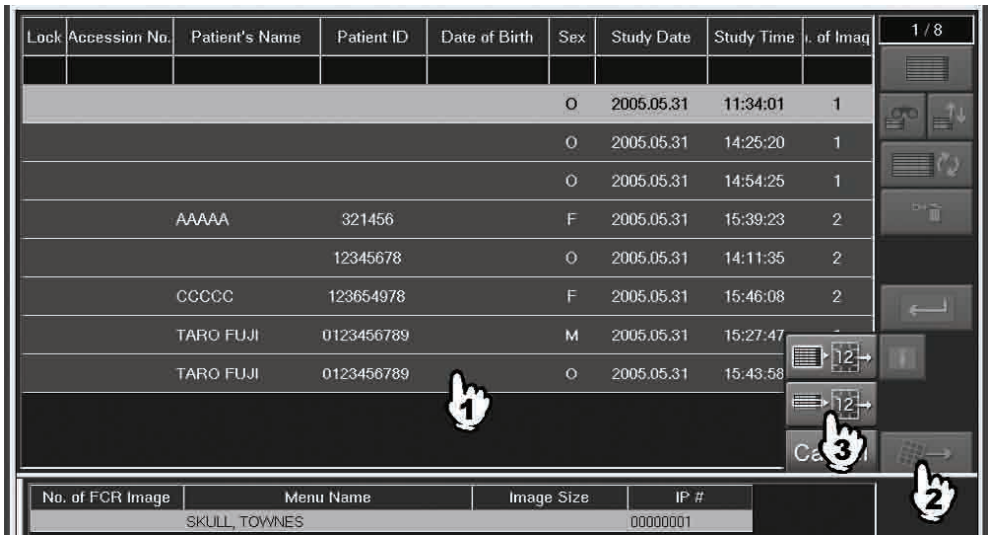
■ When printing all completed studies

Use the button to select .



■ When printing only studies selected from among completed studies

After selecting studies to be printed, use the button to select .



To cancel printout, select Cancel.

NOTE

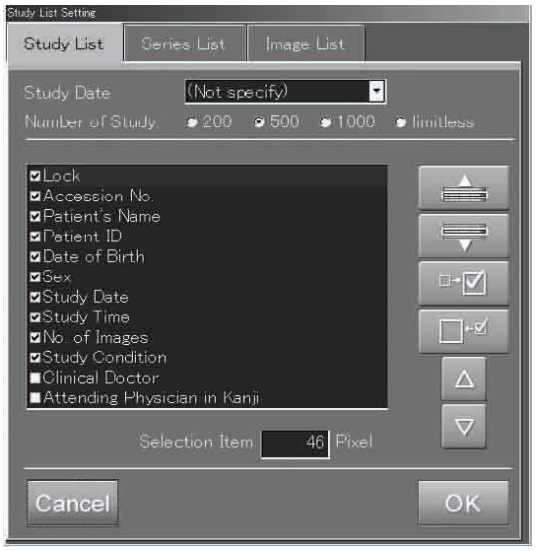
Twelve image frames can be printed on one film only with respect to images for which the study and QA processing have been shut down appropriately. Mis-exposure images, energy subtraction images, and long-view images are not covered by printout enabled by this function.

(16) Setting Study List

Customizes the list (sets information item display). This function is valid for all the lists.

Display the list to be customized, select FCR to display the menu, and then select Study List Setting.

A dialog box is displayed.
After making the settings explained below, select OK.



"Study list setting dialog box"

Cancel : Cancels operation.

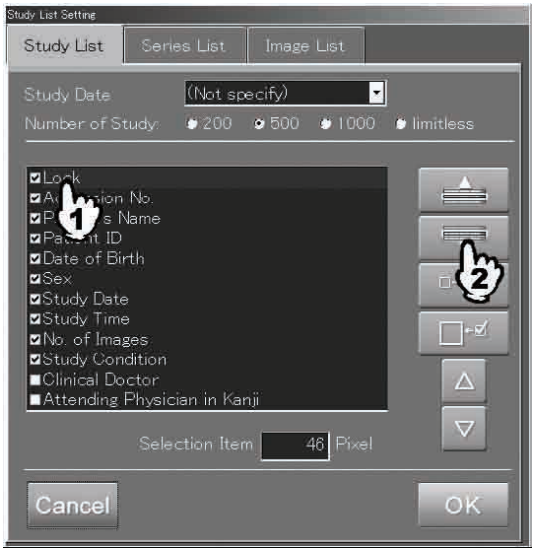
/ : Sets a display order of information items.

/ : Alternately switches whether or not to display information items.

/ : Scrolls information items.

■ Display order of information items

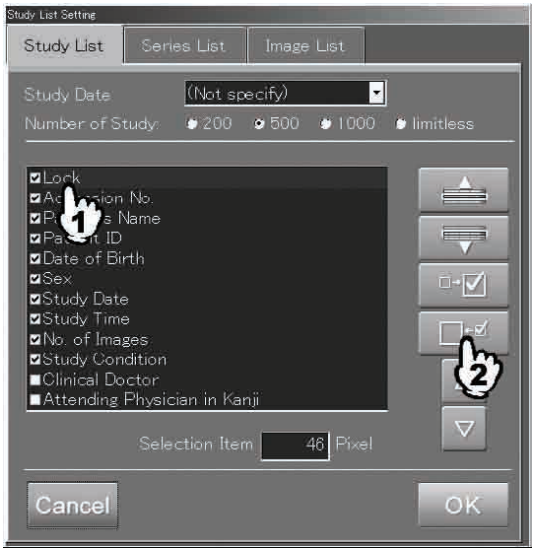
Sets order of information items to be displayed.
Select information items in each folder, and then select (toward left on the list) or (toward right on the list).
If pixel value is input in the “Selection Item” field, the width of the information items currently selected can be set.



<Example: Moves “Lock” to the right direction of the list.>

■ Display/non-display of information items

Alternately switches information items to be displayed or not.
Select information items in each folder, and then select (display) or (non-display).

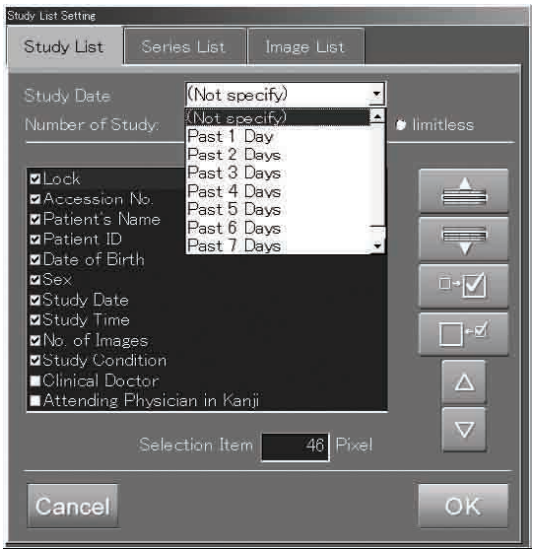


<Example: Sets “Lock” to be a non-display item.>

■ Study date specification

Specifies the study date to be displayed. This setting is valid for each list of “Local WL” / “QA” / “Delivered” / “All”.

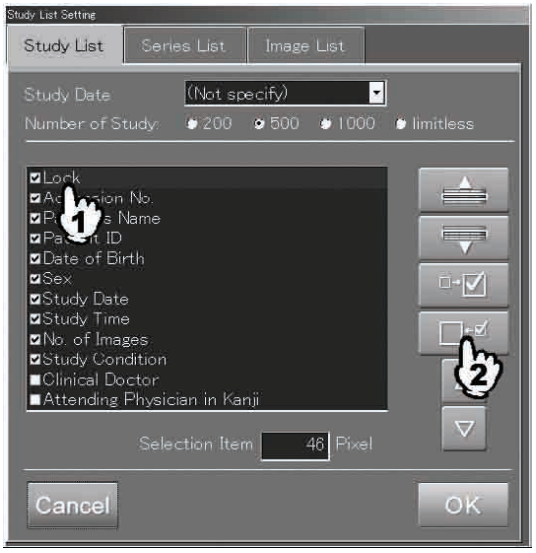
Select a specifying condition from the dropdown list at the “Study List” folder.



■ Maximum display number of study information items

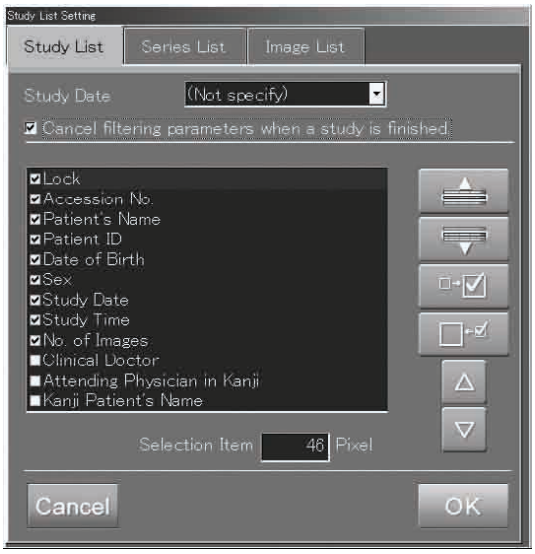
Sets the maximum number of study information items to be displayed. This setting is valid for each list of “Delivered” / “All”.

Select the number of study information items to be displayed in the “Study List” folder. If “limitless” is selected, it may take a long time to perform the list operation.



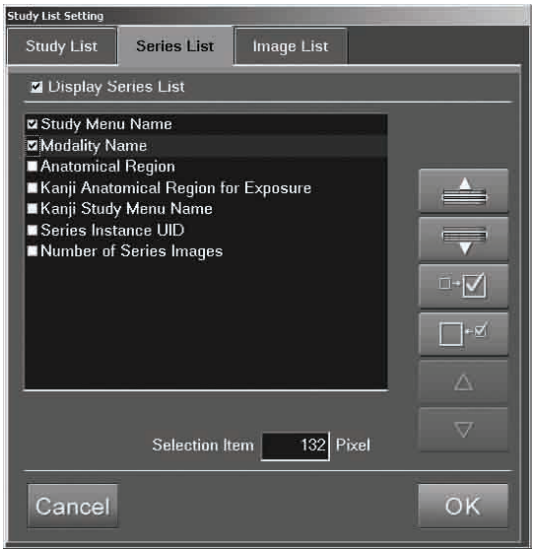
■ **Releasing filtering conditions**

After a study in the filtered study list is executed and finished, the study list will be re-displayed. At this time, auto-release /non-release of filtering conditions can be switched alternately.
This setting is not valid for “Queue” / “Delivered” / “All” / “Today”.
Select the “Cancel filtering parameters when a study is finished.” in the “Study List” folder. Whenever it is selected, release (with check mark)/non-release (no check mark) of filtering conditions is switched.



■ **Display/non-display of series list :**

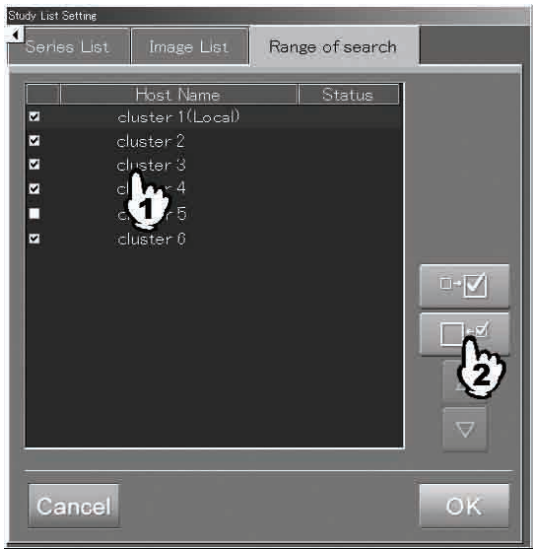
Alternately switches display/non-display of series list. As this setting is valid for all the lists (except the “Queue” list), it is not necessary to set this for each list separately.
Select “Display Series List” at the “Series List” folder. Each time selecting it, display (check mark is on)/non-display (check mark is not on) is switched alternately.



■ Range of search

Sets CR Consoles as the range of search for the information to be listed up. The study-information sharing function enables the CR Consoles to set as the range of search share the study information. Select the CR Consoles at the “Range of search” folder, and then select (to make the setting) / (to release the setting). The “ ! ” marks are displayed for the non-active CR Consoles.

The names for the CR Consoles displayed in the folder differs depending on maintenance setting made at the time of installation.



FUJI COMPUTED RADIOGRAPHY

Chapter 6

TROUBLESHOOTING

6.1 Error Messages

Explained below are error messages.
If an error which cannot be handled or the same error recurs frequently, contact our service engineer.

(1) If an Error Occurs on This Equipment

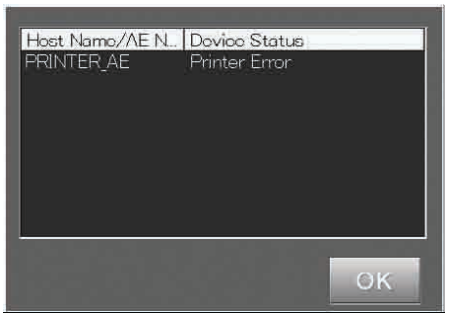
If an error occurs on this equipment, an error message box is displayed on the screen. In such an instance, check error details and select “OK” in the box, and then take an appropriate action.

(2) If an Error Occurs on Destination Device

If an error occurs on destination device, is displayed in the lower right of the screen. In such an instance, operate as follows.

Select .

Status of the device targeted for output in which an error resulted will be displayed.
Check the device status, select OK, and then take an appropriate action.



“Error display box”

6.2 How to Cope with an Error...

(1) When the System Hangs Up...

If an illegal processing is performed while this equipment is operating, the screen may freeze and the system may hang up (processing disabled).
In that case, shut down the equipment forcibly according to the following procedure, and then re-start it.

1) Press the Ctrl + Alt + Del keys simultaneously.
2) "Windows Security" is displayed.
   Click "Task Manager".
3) "Windows Task Manager" is displayed.
   Select the application currently running (may be more than one) in the list in "Applications" tab, and then click "End Task".
4) The message box is displayed.
   Click "End Task" to terminate all software applications.
   Depending on equipment units in use, operations at steps 4) and 5) may not be required.
5) The desktop screen of the operating system (Windows XP) is displayed.
   Close "Windows Task Manager", and then click the "Start" button in the lower left in the screen.
   Click "Shut Down". Shut down processing is then executed.
6) Re-start this equipment.

NOTE

Note that forcible shutdown processing of the equipment is an emergency action. Do not use this action under normal situation.

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